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The
expanded
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program

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HISTORICAL AND STATISTICAL PROFILE

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food and
nutrition
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program

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For the past ten years the Expanded Food and Nutrition Education Program has been effectively improving the diets of low-income families. This study presents an historical and statistical profile of its education efforts.

The new "nutrition education program" was first funded ten years ago by USDA with a \$10 million grant from Section 32 funds (November 1968). It was named the Expanded Food and Nutrition Education Program (EFNEP) and was charged: "To help families living in or near poverty--especially those with young children--to acquire knowledge, skills and changes in behavior to achieve adequate diets providing normal nutrition." Congress appropriated \$30 million in fiscal year 1970 and \$50,560,000 each fiscal year thereafter.

The need for this new legislation was triggered by documented reports and Congressional Hearings (1967) confirming that in this "land of plenty" several million Americans were living at or below the poverty level. These families were suffering from poor nutrition and existing on insufficient balanced diets.

The Extension Service of the U. S. Department of Agriculture, in cooperation with State Cooperative Extension Services, was selected to develop and administer the new food and nutrition education program. From the program's inception through September 1977 more than 1.5 million families were taught in the intensified education program and these families have, in turn, influenced the diets of 6 million family members. Also, approximately 3.5 million youth have participated in EFNEP's 4-H food and nutrition activities.

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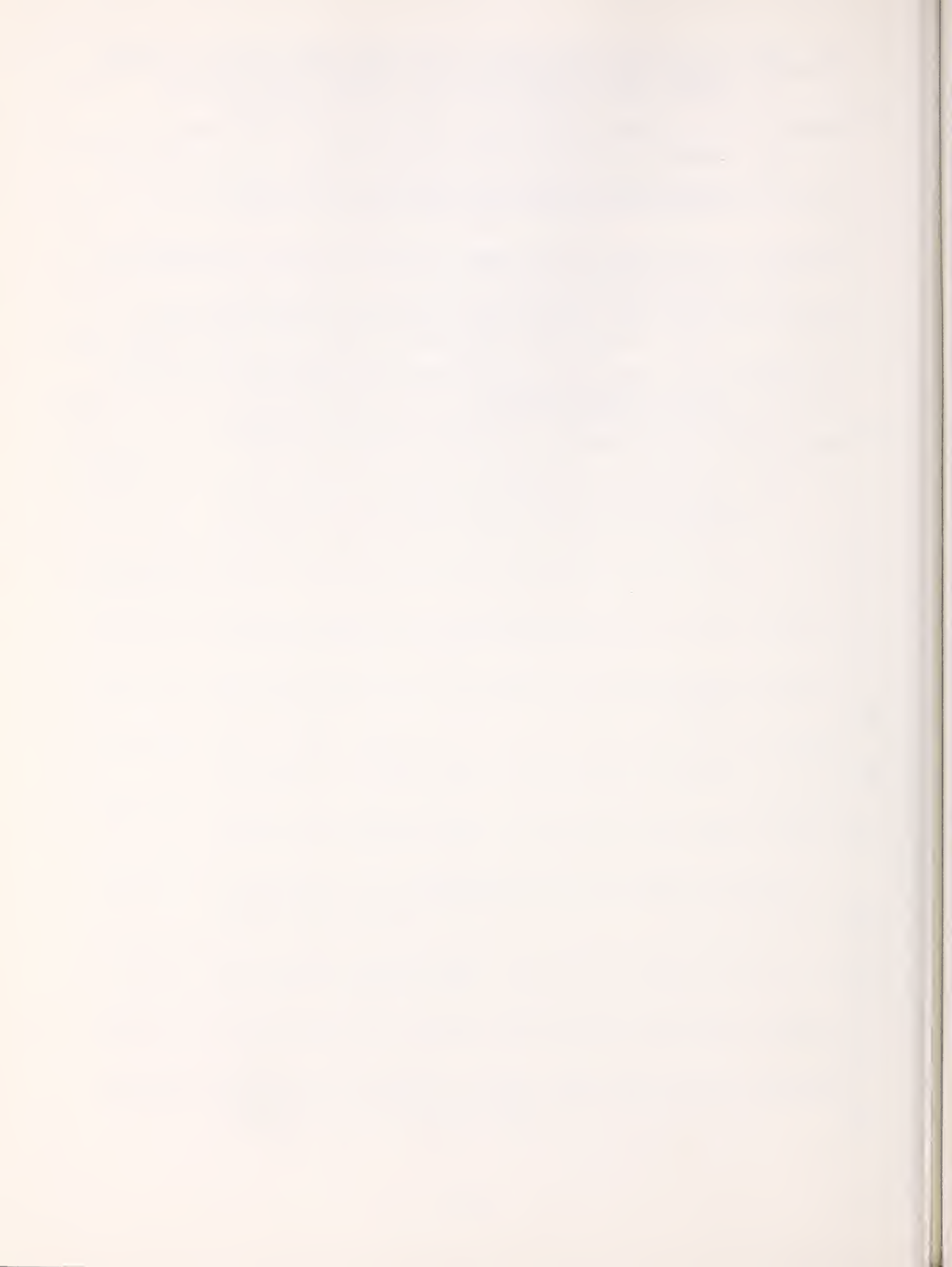
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THE FOUNDATION OF THE EXPANDED FOOD AND
NUTRITION EDUCATION PROGRAM



THE FOUNDATION OF THE EXPANDED FOOD AND NUTRITION EDUCATION PROGRAM

SUMMARY

During the early 1960s evidence was accumulating about the appalling living conditions endured by millions of Americans. Vivid glimpses of poverty and squalor were constantly shown by the news media. The attention of concerned Americans turned increasingly toward the plight of less fortunate Americans. And one of the most shocking realizations was that, in the midst of a land of plenty, children were going to bed unfed. A country that provided food for millions of people in other countries had somehow managed to overlook the hunger of its own citizens. In this atmosphere of concern, the Expanded Food and Nutrition Education Program (EFNEP) was created.

The fundamental objective of EFNEP is to promote sound nutritional principles among low-income families. Unlike welfare and food assistance programs, EFNEP focuses on nutrition and nutrition-related knowledges and skills. Rather than simply providing food for poor families, EFNEP would concentrate on providing them with the knowledge of how to use the already available food resources and the importance of nutrition.

Operating concepts and principles for such an ambitious program were carefully defined. Fortunately, the results of a series of pilot projects sponsored by the Federal Extension Service (now SEA-Extension) of the USDA produced some potential guidelines for implementing the Program:

- ✓ Paraprofessional Aides, when carefully trained and appropriately supervised, could work effectively to improve the diets of low-income families.
- ✓ Existing Extension home economics programs could be modified to more effectively reach low-income families.

These pilot projects showed the feasibility of EFNEP and also provided methods and materials to serve as a core around which a program of national scope could evolve.

The Nutritional Baseline: *The Nutritional Status of Low-Income Americans in the Mid-1960s*

If you had asked the average American about the nutritional status of families in the United States in 1965, the response probably would have gone something like this: "This is the richest nation in the world. We have the highest standard of living in the world. Except in very isolated instances, nobody goes hungry in our country." A booming postwar economy, bringing a rapid increase in material wealth, had lulled the vast majority of American citizens into assuming that abject poverty and hunger had died with the Great Depression of the 1930s. The reality was, however, much

different. There was hunger in America, though it was hidden from most Americans.

The pervasive problem of hunger and malnutrition in the United States began to surface in the 1960s. Facts and figures were rolling in, describing human misery in clinical terms of inadequate percentage of daily nutrient requirements. But, more compelling than numbers were the eye-witness accounts of a U. S. Senator who chaired the Senate Subcommittee on Employment, Manpower, and Poverty:

[In one area visited] a mother of four told me that she and her brood had bologna sandwiches for breakfast and this would be the big meal of the day. Other times they have rice or grits, she told me in an infinitely tired voice, "but we never have any milk or fruit or fresh meat." Over and over again I was told that the staple diet for [the area's poor] was beans, rice, margarine, lard, meal, peanut butter, raisins, powdered milk, and one can of meat for each person in the family per month. The can lasts, at the most, a week and a half.

The children we saw were visibly underweight, their bodies spotted with sores and untreated lesions.

Mrs. _____ and her nine children live in a tarpaper shack. On the day she was interviewed the family had gone without breakfast; for lunch they had soup made from a meat bone and cornmeal bread. For supper they would have beans-- and a rare treat, a can of peaches.

We found a mother of fifteen children nursing a three-day-old child she had delivered herself. There was no food in the house, she said, and no money. She didn't know what she would do.

[In another area] I came across a tumbledown collection of shacks ironically called Freedom City, housing the families of displaced plantation workers. Surviving, somehow, in this appalling squalor were forty-eight children who subsisted entirely on grits, rice, soybeans, and "whatever is donated," plus the customary one can of meat per month. Eggs, milk, and fruit juice, the mothers told me, were unknown (Clark, 1967, pp. 89-90).

This account, and hundreds like it from around the country, left all who read them stunned. Stark illustrations of the appalling conditions in which millions of Americans were living appeared in the news media. It became apparent that hunger, malnutrition, and starvation were not confined to any geographic region. The problem affected whites and blacks; it appeared in the cities and rural areas. Estimates of the magnitude and pervasiveness of the problem differed, but two general conclusions were inescapable:

- ✓ Several million Americans were living at or below the poverty level.
- ✓ Children and adults in low-income families were suffering from inadequate nutrition, sometimes severe malnutrition.

With the problem defined, numerous approaches to a solution were proposed. Some, such as the Department of Agriculture's Donated Foods Program, focused on the quantity of food available to low-income families. Others sought to identify those Americans left behind in the nation's rise to affluence. Hundreds of Federal, State, and local programs sought to focus their resources appropriately.

In this context, the Expanded Food and Nutrition Education Program (EFNEP) was born. EFNEP was designed to attack particularly insidious problems of hunger in America:

- ✓ It was undeniably true that many low-income families were malnourished simply because there was insufficient food. In addition, many of the families lacked a knowledge about the importance of nutrition and its relation to health. Thus, even with access to food, malnutrition often occurred because of a poorly balanced diet.
- ✓ Those families most likely to be malnourished were also likely to be isolated from sources of information and assistance in foods and nutrition. In rural areas, the isolation was mainly geographic. In cities, low-income families were cut off from educational opportunities by the high-crime areas ringing the urban slums.
- ✓ Existing educational institutions were largely a product of mainstream American society. While possessing great technical skills and resources, they maintained no explicit lines of communication with poverty families. Their educational capabilities could not, therefore, be focused directly on the nutritional needs of the poor.

These conditions suggested a number of important objectives for EFNEP:

- ✓ To develop and implement a food and nutrition education program tailored specifically to the needs of the poor.
- ✓ To help low-income families, especially those with young children, to acquire the knowledge, skills, attitudes, and changed behaviors necessary to improve their diets.
- ✓ To deliver the food and nutrition education directly to the low-income audience by employing, training, and supervising paraprofessional nutrition Aides. These Aides would be indigenous to the communities in which they would be working, and would work with families in a one-to-one setting or in small groups.

Such a food and nutrition education program would be expected to result in improved diets and health for the families served by it. Improved diets would result from increased knowledge of the essentials of nutrition, as well as from increased ability to select and buy food that satisfies nutritional needs. The program would also augment participants' skills and knowledge in food preparation, production, storage, safety, and sanitation. It would enhance the ability of families to manage resources relating to food, including participation in the Food Stamp and the Commodity Distribution Programs.

The Road to EFNEP: *Initial Concepts and Fundamental Principles*

The Expanded Food and Nutrition Education Program did not evolve overnight. Throughout the early and middle 1960s, Extension Service, the educational arm of the U. S. Department of Agriculture (USDA), funded a series of pilot studies. These studies identified productive approaches for establishing and maintaining an educational program with low-income families. The most ambitious and best documented of these studies was a five-year pilot project in Alabama (Cooperative Extension Service, 1969). Paraprofessional Aides contacted families on a one-to-one basis and taught the homemakers food and nutrition and other homemaking skills. The lessons were participatory; the paraprofessionals worked with homemakers in their own homes, demonstrating new principles and techniques and guiding the homemakers into sound nutritional practices. As the project progressed, increasing numbers of low-income families participated in and benefited from the education. The results of the project were encouraging: almost three-quarters of the homemakers involved improved the eating habits of their families; two-thirds improved their food preparation skills; over half increased the amount of milk consumed by their families, served more balanced meals, and used better food buying practices; and more than a third improved methods of storing, canning, and freezing foods. Overall, this pilot effort showed that:

- ✓ An educational program tailored to the interests, needs, competencies, and economic and educational levels of homemakers could be effective in changing their eating habits.
- ✓ Paraprofessionals, under the supervision of professional Home Economists, could be trained to teach low-income homemakers effectively.

In addition to the Alabama study, four other studies had significant impact on the evolution of EFNEP:

- ✓ The South Providence, Rhode Island Project indicated the feasibility of modifying traditionally rural Cooperative Extension Service (CES) home economics programs for use in urban slum settings (Silverman, 1966 [unpublished]).

- ✓ The Texas CES Project examined methods for reaching low-income Mexican-American families. "Of all the methods tested, two clearly stood out as the most productive in extending information to this population--the home visit and circular letters. The home visit in bringing about change, and circular letters in bringing about awareness. The study showed that a successful education program with low-income families must consider the cultural values of the people and the economic circumstances in which they find themselves" (Pfannstiel & Hunter, 1968).
- ✓ The Boston, Massachusetts CES Study indicated the feasibility of tailoring nutrition education programs to the needs of families in a large urban housing development (Eastwood, Knapp, & Hunter, 1963).
- ✓ The Missouri CES Project, funded by the Ford Foundation, also showed the viability of CES techniques in working with families living in urban slum neighborhoods. This study combined the efforts of professional Home Economists with follow-up visits by Volunteers. The participating homemakers made substantial gains in appropriately using commodity foods and getting the most for their food dollar. The project also indicated the potential of paraprofessionals in helping low-income families to incorporate nutritional principles into their daily lives (Hunter, Greenwood, Norris, & Stackhouse, 1965).

The EFNEP Concept: *The Emergence of EFNEP as an Operational Concept*

The need for an effective nutrition education program for low-income families was well established by the mid-1960s. Attention then turned to practical methods for implementing such a program. In 1967 and 1968, several national task forces were formed to examine issues of formulation, development, guidelines and evaluation systems for a national nutrition education program. Task force membership was comprised of representatives and/or consultants from a number of governmental and private organizations, including:

- ✓ Cooperative State Extension Services.
- ✓ Federal Extension Service, USDA (now SEA-Extension).
- ✓ Economic Research Service, USDA (now Economics, Statistics, and Cooperative Service).
- ✓ Statistical Research Service, USDA (now Economics, Statistics, and Cooperative Service).

- ✓ Agricultural Research Service, USDA (now SEA-Agricultural Research).
- ✓ Consumer Marketing Service, USDA (now Food and Nutrition Service).
- ✓ University Research Service (a private outside contractor).
- ✓ Representatives of the intended audience.

In January 1968 a report was presented to the Extension Committee on Policy (ECOP) by the Office of the Secretary of Agriculture on the nutritional status of low-income families in the United States. The following August a proposal was submitted by the Federal Extension Service (FES), USDA to the Office of the Secretary of Agriculture for an intensified nutrition education program with low-income families. In November 1968 the Department of Agriculture provided a ten million dollar grant from Section 32¹ funds to initiate the Expanded Food and Nutrition Education Program.

Initial funding for EFNEP provided an opportunity for each State to have multiple program sites where the one-to-one and other concepts tested in pilot projects would be used to deliver a food and nutrition education program to low-income families. The grant provided for employment of paraprofessional Aides in 513 units. Aides were trained and supervised by Extension Home Economists to teach homemakers on a one-to-one basis or in small groups.

From Concept to Operation: *Audience, Delivery System, Vehicle, and Message*

With the problem defined and some insight into the way in which a nutrition education program for low-income homemakers could be formulated, a workable operational concept for EFNEP was established.

AUDIENCE

The target audience for EFNEP must be low-income families throughout the United States. While CES had traditionally focused on rural areas and all income levels, EFNEP was designed to include only poor families in both rural and urban settings. Including city dwellers in the target audience was essential because of the large proportion of poverty-stricken families residing in urban areas. Approximately five and one-half million families were in poverty

¹This is Section 32 of an Act generally identified as "Removal of Surplus Agricultural Commodities" passed on 24 August 1935 (United States Code reference: 7 U.S.C. 612). This legislation appropriated funds equal to 30 percent of gross annual customs receipts to encourage exportation and domestic consumption of agricultural products.

when the program was initiated. In 1970, youth from depressed city areas were included as a part of the audience.

DELIVERY SYSTEM

The existing Extension Service organization provided an excellent structure for initiating EFNEP. Rationales for employing Extension Service included:

- ✓ Extension Service already functioned as an educational structure and as a partnership of Federal, State, and local governments. Superimposing EFNEP on an existing organization assured timely and efficient delivery of needed educational services, since in-place administrative, communication, and technical resources could be easily exploited.
- ✓ Administrative personnel within Extension Service had a history of successfully managing service programs on a national scale. This administrative resource would prove invaluable in initiating and following through on EFNEP implementation.
- ✓ Extension Service could bring to bear a broad range of technical and administrative capabilities at all levels of government. Home Economists were available at Federal, State, and county levels and had taught food and nutrition subject matter. Most had experience in teaching methods and techniques, development of educational materials, recruitment of participants, and program evaluation. CES had the support of food and nutrition specialists at the Federal and State levels, and the day-to-day supervision of the Extension Home Economists at the county level.
- ✓ In commissioning, supporting, and monitoring various pilot projects, Extension Service had become quite familiar with the cluster of skills, knowledges, practices and materials required to implement a large nutrition education program. Paraprofessional training methods and materials, methods for teaching the low-income audience, education materials for participants, homemaker contact strategies, and record-keeping and administrative procedures were particularly valuable legacies of the pilot efforts.

VEHICLE

Pilot efforts indicated that the most effective vehicle for bringing about behavior change with homemakers involved the use of paraprofessional indigenous Aides for the following reasons:

- ✓ Pilot efforts demonstrated that well trained and supervised indigenous Aides could effectively teach food and nutrition.

- ✓ One-to-one teaching by paraprofessionals was proven to be the most effective way of changing food and nutrition behaviors with low-income families. The use of indigenous Aides promised to ease significantly the problem of reaching and teaching a low-income audience.

Paraprofessional Aides would be trained and supervised by professional Extension Home Economists. As pilot efforts had also demonstrated, paraprofessional training was of paramount importance in the success of such activities. Initial training would provide EFNEP Aides with a solid base in administrative and operating techniques and in food and nutrition subject matter. Continued training would provide a means for assuring that Aides were attuned to the newest and most up-to-date techniques and subject matter. Ongoing monitoring and evaluation would assure that Program resources were being effectively employed.

MESSAGE

The message of EFNEP has from the inception of the Program been basically quite simple: good nutrition is within the reach of most low-income families; EFNEP has the tools, techniques, personnel, and other resources to show the way. From the beginning EFNEP education and instruction have been guided by the following fundamental principles:

- ✓ Information must be based on the latest available research, taking into account nutrition knowledge, instruction technology, and methodology for reaching and working with low-income groups.
- ✓ Teaching must be focused to produce measurable behavior change in the target population, and measurement of that behavior change must be an integral part of Program activity.

**THE EVOLUTION OF THE EXPANDED FOOD AND
NUTRITION EDUCATION PROGRAM**



THE EVOLUTION OF THE EXPANDED FOOD AND NUTRITION EDUCATION PROGRAM

SUMMARY

Federal Extension Service presented an excellent structure for initiating EFNEP. The existing educational, technical, and administrative capabilities at each level of national, State, and county Extension provided a unique organization through which the Program could function. EFNEP was therefore organized and initiated in November 1968 within the Extension framework, and operations began in early 1969.

Three governmental levels of EFNEP share responsibility for the successful operation of the Program with each providing appropriate functions:

- ✓ **EFNEP leadership at the national level** has overall responsibilities for monitoring and evaluating the nationwide Program. It also provides administrative and technical support to coordinate interstate Program activities and to implement federally mandated procedures.
- ✓ **State Cooperative Extension Services (CES)** provide second-line administrative control for EFNEP. **CES Program Coordinators** provide overall and/or delegated leadership for coordination and management of EFNEP within the States. **CES Food and Nutrition Specialists** prepare training and resource materials in nutrition and nutrition-related subject matter which serve the needs of unit-level Program professionals, paraprofessionals, Volunteers and participants.
- ✓ **County CES EFNEP personnel** are the backbone of EFNEP, since it is at the county level that contact with the low-income clientele occurs. **Professional Home Economists** have direct responsibility for the successful operation of county EFNEP units. They train and supervise the **paraprofessional Program Aides** who are generally indigenous to the geographic area in which they work and who teach low-income homemakers and youth directly. In addition, **Volunteers** are recruited to work with both adults and 4-H EFNEP youth.

In preparation for their work, paraprofessional Program Aides receive initial training in nutrition, nutrition-related areas, educational techniques, and administrative procedures. In-service training continues on a regular basis and addresses topics as the need for training in a given subject matter is identified.

Program families are recruited and enrolled by Aides, usually through door-to-door contact. Demographic and nutrition behavior data are collected from Program families so that efforts can be focused on specific needs of individual families. Aides then work with homemakers and families to optimize nutritional resource allocation and diet patterns. A core component of instruction focuses on the Basic Four Food Groups: milk, meat, vegetables and fruits, and breads and cereals. Meal planning, food selection and buying, and food safety and sanitation are also taught.

Generally, Aides work with homemakers on a one-to-one basis in the homemaker's own residence. When convenient, instruction is also carried out in small group settings. Teaching techniques emphasize "learn by doing" sessions in which the Aide and homemaker work together to improve the homemaker's nutritional skills and capabilities. Aides also use demonstrations, visual aids, and audio-visual equipment. Family progress in dietary and food-related habits is evaluated by Aides at six-month intervals using a 24-Hour Food Recall and a Food Behavior Checklist. When Program families attain adequate diets they are graduated from EFNEP; those who show little or no progress after a concentrated effort of teaching by Aides are dropped from the Program. In this manner, EFNEP continuously cycles low-income families through the Program, thereby assuring maximum exposure of the target clientele to the Program.

Originally, EFNEP worked almost exclusively with homemakers. In 1970 specific earmarked funds were reallocated to teach nutrition and nutrition-related skills and to increase the adequacy of diets of low-income youth of 4-H age. The same nutrition education content is used in the youth component as is used in the adult component. But, education programs for youth are specifically tailored to individual age groups and most youth are taught in group situations. A key element in the 4-H EFNEP youth component, however, is the widespread use of Program Volunteers.

EFNEP requires periodic review and retargeting. National EFNEP administration has long recognized these requirements and has responded by: preparing national guidelines; convening national workshops to promote and ensure Program growth and national task forces to focus on issues of major concern to the Program; commissioning evaluative studies and reviews; conducting EFNEP surveys and financial reviews and maintaining a national Reporting System for Program monitoring; and enhancing public awareness of the Program through publicity campaigns using a variety of media techniques. Congressional mandates, the review process, and focus on continuing Program improvement have resulted in: establishment of the 4-H EFNEP youth component; concentration on families with young children; and development and implementation of the Progression Model, a training packet for EFNEP Volunteers, a series of food and nutrition lessons for 4-H EFNEP youth and a series for adults, and supervisor manuals for use with the paraprofessional staff.

Program Structure: *Personnel, Roles, and Responsibilities*

Key EFNEP personnel are located in Extension within the Science and Education Administration (SEA)² national office, USDA; at the land-grant universities; and at the local operating sites. The present overall organizational structure of EFNEP is illustrated in Figure 1.

SEA-EXTENSION/USDA

The leadership at the national level of EFNEP has overall responsibility for monitoring and evaluating the nationwide Program. It also provides administrative and technical support to coordinate interstate Program activities and to implement federally mandated procedures. Specific activities and responsibilities of SEA-Extension include:

² Prior to 1968 this group was identified as Federal Extension Service (FES). In 1968 the name was changed to Extension Service (ES) USDA. In January 1978 the group became part of the Science and Education Administration (SEA) of USDA and is now identified as SEA-Extension.

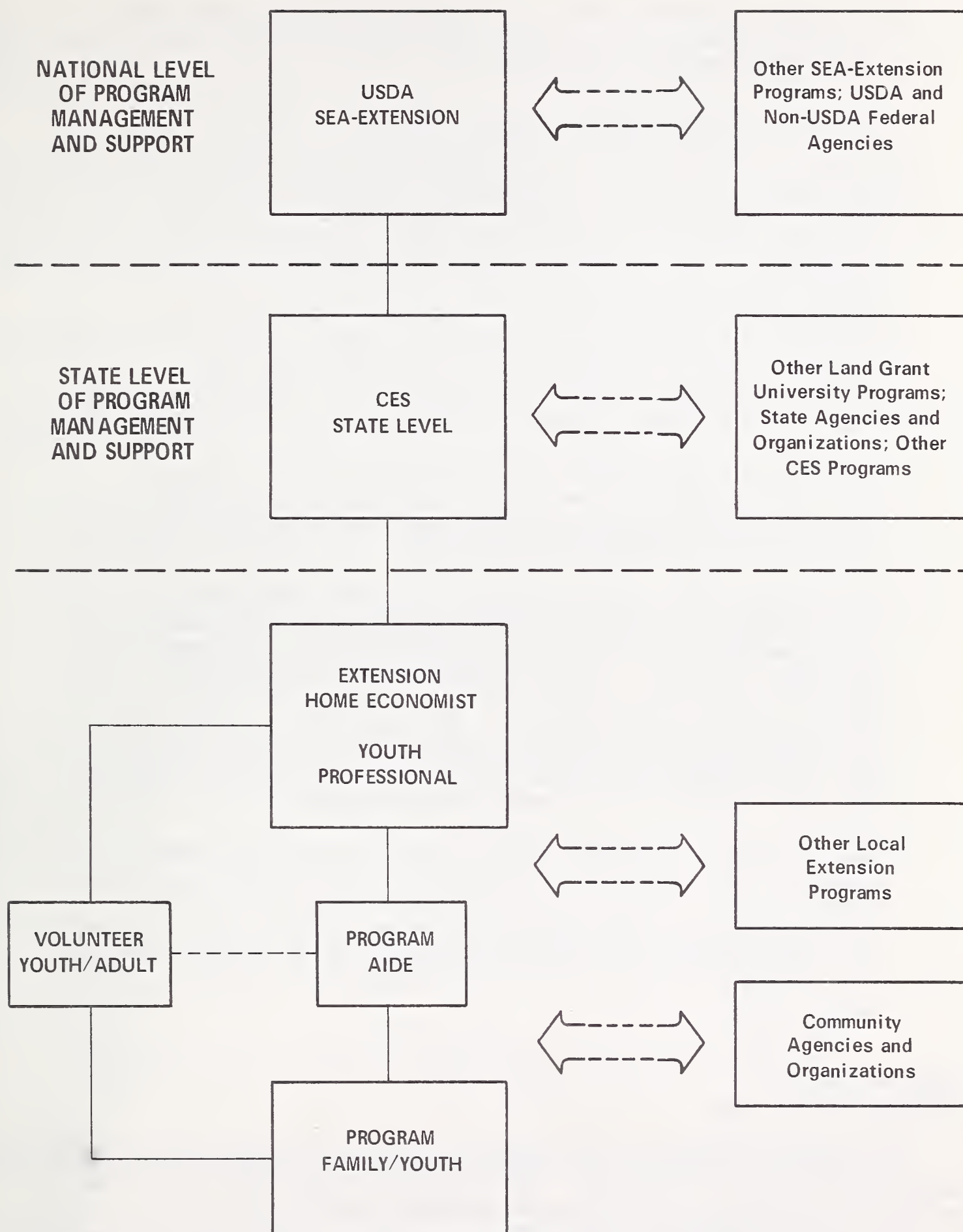


Figure 1. Organizational Structure of EFNEP

- ✓ Development, implementation, and interpretation of guidelines for EFNEP operations, including determination of shifts in content and focus of the Program.
- ✓ Reporting Program status, trends, and plans to Congress, Department administration, and the public.
- ✓ Organization and conduct of national workshops. Workshops were held biennially from 1968 through 1976 to help State personnel explore ways to further Program growth and staff development. The workshops offered a mechanism to interpret Program status from printout data, review Program research and surveys, and learn methods to increase and improve Volunteer assistance and participation. The meetings also provided a vehicle through which to introduce new educational and management materials or other materials derived from special projects and evaluation studies.
- ✓ Conducting Program surveys and financial reviews, including substantive analysis of both State- and unit-level operations, through site visits and periodic collection, analysis, and monitoring of EFNEP evaluation data.
- ✓ Establishment of national task forces for the development of position statements and subject matter education materials specifically suited to the EFNEP audience. Some of the latter include: a lesson series for 8 to 10 year old youth; the "Customize Your Diet" lesson series for teenagers; an adult lesson series; a series of Phonoviewer shows; the "Mulligan Stew" television series which focuses on the importance of good nutrition for children and youth; and the "Volunteer Dimensions in EFNEP" training packet.
- ✓ Establishment of national task forces for developing administrative tools such as: *Paraprofessionals in Home Economics Programs for Low-Income Audiences*, *Supervising Paraprofessionals*, the EFNEP Reporting System, *Career Ladders for Paraprofessionals*, and the Progression Model for the youth and adult components of the Program within EFNEP and beyond EFNEP.

STATE COOPERATIVE EXTENSION SERVICES (CES)

To visualize accurately how EFNEP operates, it is first necessary to understand how CES is organized. CES, the State-level educational arm of the Department of Agriculture, is based at the 52 land-grant universities. As part of the land-grant system, CES has staff in nearly all of the counties in the United States. The name "Cooperative Extension Service" derives from financial and administrative arrangements involving three levels of government--Federal, State, and county. The State level supervises the county level of CES, and is inseparable in carrying out the same objectives. The

State staff provides support in foods and nutrition education methodology and Program development and evaluation. The county staff--with the involvement of the participants--delivers the educational program and provides the day-to-day supervision and training of the paraprofessional staff.

Through this unique educational network of Federal-State-county relationships, CES conducts educational programs of significance in achieving local, State, and national goals. Within this nationwide system, research results of the land-grant universities, the agricultural experiment stations, and the USDA research agencies are directed toward solving problems of the American people.

At the State level, two EFNEP positions are most crucial to Program operation--the Program Coordinator and the Food and Nutrition Specialist.

Program Coordinator. The Program Coordinator provides overall direct and/or delegated leadership for coordination and management of EFNEP within the State. Specific responsibilities and functions include:

- ✓ Assisting in the development and interpretation of policy guidelines and providing coordination and leadership in planning, implementing, reporting, and evaluating the Program.
- ✓ Working with staff development committees and nutritionists to encourage and facilitate staff development and training for professionals and paraprofessionals in EFNEP subject-matter content and record keeping.
- ✓ Providing direct assistance through appropriate channels to local and area staff in support of their educational efforts and facilitating efforts for recruitment and training of Program Aides and Program Volunteers.
- ✓ Testing and evaluating EFNEP nutrition education materials and methods with appropriate staff.
- ✓ Facilitating communication and coordination between State Extension staff and outside agencies and organizations on matters relating to EFNEP.
- ✓ Participating in the national Reporting System, interpreting Program data and events for USDA administration and providing Program visibility to the general public.

Food and Nutrition Specialist. The functions and responsibilities of Food and Nutrition Specialists at the land-grant universities include:

- ✓ Reviewing nutrition materials for accuracy and appropriateness for use in the Program and to identify current trends which can update the Program's nutrition education materials.
- ✓ Adopt and prepare nutrition educational materials.

- ✓ Providing training to Program professionals and paraprofessionals in nutrition and nutrition-related subject matter and in using the 24-Hour Food Recall technique to obtain a measure of the Program's behavioral effect.
- ✓ Reviewing and interpreting the food recall records and other Program data to assist in Program evaluation and to determine the training needs of Program professionals, paraprofessionals, and Volunteers.
- ✓ Periodically making home and field visits with professionals and paraprofessionals to observe and understand nutrition education needs of families, Aides, and Volunteers.

At the county level of CES, four EFNEP roles are of paramount importance: the professional Home Economist, the Youth Professional, the paraprofessional Program Aide, and the Program Volunteer. Personnel filling these roles are the backbone of EFNEP, since it is at this level of the Program that primary contact with the low-income clientele to be served is made.

Professional Home Economist. The professional Home Economist generally serves as the first-line supervisor for the paraprofessional Program Aides. In this capacity, the Home Economist has direct responsibility for the overall success of EFNEP operation in the unit. In the adult education portion of EFNEP, the responsibilities of the CES professional Home Economist include:

- ✓ Providing overall leadership, management, coordination, and evaluation of the adult Program to achieve Program objectives within the framework of SEA-Extension and State CES Program guidelines. May serve as the contact to the youth phase if they are coordinating both phases.
- ✓ Recruiting, training, and providing long-range planning, evaluation, and day-to-day supervision of paraprofessionals.
- ✓ Clarifying and communicating the shared and individual roles of staff and Volunteers, assessing needs, conducting and evaluating training for paraprofessionals and Volunteers to achieve Program objectives.
- ✓ Summarizing and communicating Program results for use by county, State, and national offices for Program management.
- ✓ Conducting Program visibility activities.
- ✓ Providing leadership for the progression of families in and through EFNEP through such activities as organizing Program participants into Program Development Committees and working closely with appropriate Extension and other community personnel who can identify or provide additional educational opportunities for Program participants.

- ✓ Interacting with representatives of other agencies and organizing Resource Committees. Representatives of other agencies participate in Program activities through in-service training of paraprofessionals and provide linkage with other agencies for making family referrals.
- ✓ Relating experiences in EFNEP with other county Extension personnel in an effort to identify family needs and program determination in home economics.

Youth Professional. For the 4-H youth component of EFNEP, the functions of the CES Youth Professional include:

- ✓ Providing overall leadership for development of 4-H EFNEP for low-income youth--identifying needs, providing long-range planning, and implementing and evaluating Program activities--within the framework of SEA-Extension and State CES Program guidelines. May serve as the youth contact to the adult Program.
- ✓ Identifying, recruiting, training, and providing day-to-day supervision for paraprofessionals and Volunteers who carry out nutrition and nutrition-related educational programs for low-income youth.
- ✓ Summarizing and communicating Program results to be used by county, State, and national offices for Program management.
- ✓ Conducting Program visibility activities.
- ✓ Relating experiences in 4-H EFNEP with other CES and EFNEP personnel in determining 4-H EFNEP development direction; identifying common problems, needs, objectives, training, and resources; providing further opportunities for 4-H EFNEP youth development through 4-H; and implementing and evaluating the Program.
- ✓ Organizing Program Development Groups involving indigenous community leaders, representatives of 4-H EFNEP youth, and Program Volunteers to strengthen 4-H EFNEP nutrition education programs.
- ✓ Serving as liaison with other community institutions, agencies, and organizations concerning 4-H EFNEP.

Paraprofessional Program Aide. Paraprofessional Program Aides are generally indigenous to the audience with whom they work. Very often the Program Aide does not have a high school diploma. Working under the direction of CES professional EFNEP staff, the Program Aide receives initial and continuing training in food and nutrition and food- and nutrition-related topics. The Aide follows established policy guidelines provided by CES and SEA-Extension. These guidelines apply to subject-matter content, designation of

the target audience, record keeping on Program activities and the status and progress of EFNEP families and youth, and other administrative items.

In the adult component of EFNEP, the paraprofessional Program Aide implements the food and nutrition education program for low-income homemakers. The Aide works with homemakers on a one-to-one (individual instruction) basis or in small groups. The specific responsibilities of the Program Aide in the adult component of EFNEP include:

- ✓ Recruiting and enrolling low-income adults in EFNEP. Closely linked to the enrollment process are identification of the specific food and nutrition education needs of the Program family and development of a plan to provide appropriate educational experiences.
- ✓ Teaching food and nutrition and food- and nutrition-related subject matter to the homemakers individually and/or in small groups and in a manner that promotes transmittal of the learning experience to the children in the family.
- ✓ Evaluating the progress of the homemaker and helping to determine when the homemaker is ready for progression.
- ✓ Identifying the potential for 4-H EFNEP youth participants from among the children of Program families.
- ✓ Identifying and recruiting potential Program Volunteers to assist in both the youth and adult activities of EFNEP.
- ✓ Referring families to other Extension programs or to other agencies or organizations.

In the 4-H youth phase of EFNEP, the development and involvement of Program Volunteers is a primary focus. In addition to identifying and recruiting Volunteers to work with 4-H EFNEP, the Program Aide, under the supervision of a professional, assists with the following tasks associated with 4-H EFNEP:

- ✓ Assisting the professional in training Program Volunteers in appropriate subject matter to work with youth. This may include observation and involvement by the EFNEP Volunteer as the Program Aide teaches youth.
- ✓ Teaching food and nutrition and food- and nutrition-related subject matter to low-income disadvantaged youth in 4-H EFNEP groups.
- ✓ Alerting 4-H EFNEP youth to other opportunities in 4-H.

Program Volunteer. Volunteers are used to the extent possible in conducting 4-H EFNEP. The CES professional in the unit has the primary responsibility for coordinating the Program Volunteer training program. Frequently, however, some of this responsibility is delegated to paraprofessionals who

have exhibited particular aptitude for and appreciation of nutrition education and organizational duties of the 4-H component of EFNEP. Volunteers are recruited by CES professionals, paraprofessionals, youth and adult EFNEP participants, other Program Volunteers, or by any other practical means. Volunteers from the low-income audience are encouraged to work with 4-H EFNEP, but utilization of Volunteers from other socioeconomic groups is not precluded.

Continuous effort is made to develop the Program Volunteer as a major resource in the youth component of EFNEP. Some of the more important Program Volunteer functions in 4-H EFNEP include:

- ✓ Teaching food and nutrition and food- and nutrition-related subject matter to youth groups.
- ✓ Recruiting youth and other Program Volunteers and organizing them into 4-H EFNEP groups.
- ✓ Helping to secure appropriate educational materials and opportunities.
- ✓ Handling arrangements for meeting facilities, nutrition-related activities such as camps and tours, and transportation.
- ✓ Assisting in training of other Program Volunteers.

In the adult EFNEP component, Program Volunteers also have a number of potential functions, including:

- ✓ Recruiting low-income families for EFNEP participation.
- ✓ Assisting a paraprofessional Program Aide or experienced Volunteer in teaching food and nutrition and food- and nutrition-related subject matter, especially in workshop or groups settings.
- ✓ Handling arrangements for group meetings, including meeting facilities and transportation.
- ✓ Helping motivate Program families and youth to participate in other Extension programs.

Program Elements: *How the Program Operates*

SITE SELECTION

Program sites are selected by the States. Primary criteria for site selection generally are:

- ✓ The percentage of low-income families residing in the specific geographic area.
- ✓ Availability of quality professional staff in the area.

In general, sites or operating units are composed of a single county, since the county-level CES organization serves as the basic administrative element of EFNEP. In some very sparsely populated rural areas, however, Program units may consist of two or more counties. Likewise, the high population densities of urban areas may require that several geographic sites be located within a single city. Program sites for the youth component are primarily in urban areas.

RECRUITING AND TRAINING PARAPROFESSIONAL PROGRAM AIDES

As stated previously, paraprofessional Program Aides generally are recruited from the populations with which they will be working. They thus share with their Program families an appreciation of the special problems of poverty, and generally have some knowledge of community services and organizations with which they must interact as EFNEP staff.

Training of Program Aides is of two types: initial training, consisting of intensive instruction in required job skills, provided immediately after being hired; and in-service training, provided at periodic intervals to active Aides throughout their EFNEP service.

Initial Training. Initial training of paraprofessionals covers a wide variety of topics and is intended to produce Program Aides who can work effectively with families and youth to improve nutritional levels. Newly hired Program Aides receive the equivalent of 15 full days of training (120 hours). These training sessions include instruction in:

- ✓ Nutrition knowledge and attitudes that lead to improved diets. The focus is on normal nutrition.
- ✓ Planning for daily food needs.
- ✓ Knowledge and practice in meal planning and in food preparation and storage.
- ✓ Knowledge and practice in food selection and buying.
- ✓ Family financial management as it relates to the food needs of family members, adjustment to income, and to the local food situation.
- ✓ Use and care of equipment considered necessary for food preparation, storage, and utilization.
- ✓ Food safety and health and sanitation practices relating to food.

- ✓ Improving family food practices that contribute to personal development of family members.
- ✓ Gardening and food production.
- ✓ Food preservation.
- ✓ Teaching methods--for changing food-related behaviors of family members to help them achieve improved diets.
- ✓ Techniques for recruiting families.

The professional CES Home Economist uses a variety of training materials, including: training outlines and course materials developed specifically for instructing paraprofessionals; materials relating specifically to working with low-income families; human relations guides to Aide training; training guides for specific food- and nutrition-related topics; and lesson guides and hand-out materials targeted specifically to youth, teen, and adult groups.

In-Service Training. Continuous in-service training has been an important element of the Program since its inception. In-service training is provided on a regular basis and addresses subject-matter topics as the need for training is identified. Often, in-service training deals with issues such as:

- ✓ Instruction that reinforces Program guidelines and policies.
- ✓ Changes in policies due to Congressional and Administrative/Extension organization and policy interpretation.
- ✓ Updating in food and nutrition and food- and nutrition-related subject-matter areas.
- ✓ Awareness of newly established community resources.
- ✓ Training in administrative procedures in response to a pervasive problem, e.g., misunderstanding on the part of Program Aides as to how reports are to be completed.
- ✓ Refresher training on concepts, principles, and methods provided in the initial training.

RECRUITING AND TRAINING VOLUNTEERS

As is the case with paraprofessional Program Aides, current guidelines recommend recruitment of Program Volunteers from the low-income population being served, but Volunteers do come from other socioeconomic strata. Anyone who is sensitive to the nutritional needs of disadvantaged families can make effective contributions in the Volunteer role. Volunteers are trained in subject-matter content similar to that received by Program Aides. Those working with youth receive special training in working with young people in groups.

REACHING AND TEACHING HOMEMAKERS AND FAMILIES

Audience Characteristics. In the adult component of EFNEP, one or more of the following conditions characterize the Program audience:

- ✓ Homemakers with young children. Priority is given to enrollment of these families.
- ✓ Isolated poor families who are eligible for USDA food assistance programs.
- ✓ Families receiving welfare assistance.
- ✓ Families in which there is a low level of formal schooling among adults.
- ✓ Families living in housing which is in need of extensive repair or replacement.
- ✓ Families with a relatively high proportion of children, youth, and/or elderly family members dependent on one family member of working age.

Recruiting Families. Program families are recruited in a number of ways. The principal technique is usually door-to-door contact by Program Aides. As the Program matures, it gains a substantial number of new Program families through referrals from active Program families, graduated families, youth and Volunteers participating in 4-H EFNEP, and other community agencies. Whatever the source of the referral, family enrollment is invariably carried out by the Program Aides, who replace graduated families in order to sustain their work loads.

Enrolling Families. Working with individual Program families is a highly individualized process. Initial contact visits generally focus on explaining the purpose, objectives, and methods of EFNEP to the prospective Program homemaker. The Program Aide emphasizes the purpose of the Program as education rather than service. Once the homemaker decides to participate, the Aide typically seeks to assess the nutritional and nutrition-related status of the new family. The homemaker is considered enrolled in the Program as soon as the Aide has completed the demographic information on the Family Record.

This demographic information on the Family Record is also the source of summary data provided by each Program unit to SEA-Extension at regular intervals. The second part of the Family Record deals with food consumption (24-Hour Food Recall) and food expenditures. Soon after enrollment, the homemaker is asked to provide information for a 24-Hour Food Recall. In the food recall procedure, the homemaker identifies all of the foods eaten on the previous day. An experienced Aide may also document amounts of food reported eaten by the homemaker. The most important use of this information is by the Program Aide when planning nutrition lessons for the homemaker. Although recommended concepts of food and nutrition are available in lesson

form, the Program Aide tailors the concepts of the teaching visits to the family's specific nutritional needs and priorities. The food and nutrition subject matter is presented by involving the homemaker in the learning experience. In practice, the Program Aide evaluates the homemaker's nutritional knowledge and skill through discussion with her and observation. To assist in this task, the Aide assesses the results of the homemaker's food recall and also a Food Behavior Checklist to guide her discussion and assessment of the homemaker's nutritional status.

Instructional Focus. A core component of instruction focuses on the Basic Four Food Groups: milk, meat, vegetables and fruits, and breads and cereals. Numbers of daily servings from each food group that are necessary for an adequate diet are continually stressed. The effect of overcooking vegetables is emphasized by pointing out that overcooking results in loss of some nutrients and that additional servings from this food group must be eaten to compensate for the lost nutrients. Other emphases include meal planning, food preparation, food selection and buying, food safety and sanitation, gardening and food preservation, effects of diets deficient in one or more of the food groups, and planning for the daily food needs of families.

Aides are trained to expect that food preferences of homemakers and their families will produce resistance to eating some foods. The Aides' training includes ways to substitute less-expensive foods for higher-priced foods and alternate ways to prepare a food to provide greater food variety.

Low-cost recipes may be prepared to support a food and nutrition principle or concept. While consideration is given to ethnic food preferences, families are taught to eat a variety of foods and how to introduce new foods into their existing food patterns. Families are encouraged to try new foods and to prepare familiar foods in a more nutritious manner.

Teaching Techniques. The teaching delivery method is one-to-one or small group meetings. The repertoire of teaching techniques includes:

- ✓ Planned involvement of the audience--"learn-by-doing" sessions, in which the Aide and the homemaker work together to improve the skills and knowledge of the homemaker.
- ✓ Teaching by the demonstration method.
- ✓ Using visual aids, such as flip charts, flannel boards, educational games, handouts, etc.
- ✓ Using audiovisuals, such as film strips, Phonoviewer, movies, and slide shows, primarily at small group sessions.

Teaching methods or techniques attend to the homemakers' nutritional needs, food preferences, available geographic food supply, and available resources of the Program families.

Family Nutritional Progress. EFNEP teaching focuses on changing nutrition behavior. Homemaker progress during Program participation

is assessed through the 24-Hour Food Recall and the Food Behavior Checklist. The food recall and Food Behavior Checklist, part of the Progression Model, provide the Program Aide direct information to track the progress of individual families and to guide further teaching experiences with the homemaker. The use of the Progression Model results in two graphic displays of nutritional status progress, or lack thereof. It also contains performance criteria which are used to decide "what" additional information needs to be taught/learned to reach the goal of the program.

Cycling Program Families. One of the objectives of EFNEP is to reach the greatest number of potential Program families possible. To do this, it is necessary to continually cycle families through the Program, and to graduate homemakers who have absorbed all of the information they can learn or which the Program can provide them. Two important sources of information which make up the Progression Model are used by Program Aides to evaluate the progress of families: the homemaker's 24-Hour Food Recall and the Food Behavior Checklist. Homemakers who achieve and reach a criterion level using the Progression Model are graduated from the Program. Homemakers who progress too slowly or not at all are dropped from the Program unless there are mitigating circumstances, e.g., overwhelming lack of resources, lack of intellectual capacity on the part of the homemaker requiring sustained participation, illness. Families are dropped when it is felt that continuing work with them, rather than with families having greater needs, may not be the best utilization of resources.

Insights and perception of the Aides about the progress and potentials of the families with which they are working are checked against the Progression Model data at six-month intervals. Special circumstances perceived by Program Aides are considered in any decisions about graduating or dropping Program families. Decisions related to Program termination are often discussed with the supervising Home Economist.

REACHING AND TEACHING YOUTH

The Program audience for 4-H EFNEP is defined as low-income youth, primarily in urban areas, who exhibit any or all of the following characteristics:

- ✓ Youth of 4-H ages, as determined by each State, from EFNEP families.
- ✓ Youth living in low-income geographic areas.
- ✓ Youth living in low-income areas of cities.
- ✓ Youth residing in low-income housing projects.
- ✓ Youth participating in free or reduced-cost school lunch programs.
- ✓ Youth from families receiving Aid to Dependent Children.
- ✓ Youth participating in other programs reaching low-income youth.

Nutrition education content for 4-H EFNEP is identical to that for the adult component. Education programs for youth are specifically tailored to age groups and most youth are taught in a group situation. A key element in the youth component, however, is the widespread use of Program Volunteers.

INTERACTING WITH OTHER AGENCIES

Historically, SEA-Extension has developed and maintained liaison with other USDA and non-USDA agencies and organizations which conduct programs for and/or provide services to low-income audiences. Liaison with other agencies helps to assure that services are not needlessly duplicated, and that key needs are met in a comprehensive and coordinated manner. The joint development of educational materials mutually serves the purposes of both agencies. Interagency cooperation is carried out at all levels of EFNEP. At the participant level, the existence of interagency communications creates a working climate for family referrals.

Program Course: *Focusing the Program for Optimum Impact*

SHARPENING PROGRAM TARGETING

National EFNEP administration has long recognized that successful operation of a Program with the far-reaching goals and objectives established for EFNEP is dependent on periodic review and retargeting of methods and focus. A variety of mechanisms is applied for analyzing requirements for Program retargeting.

National Guidelines. National EFNEP administration established guidelines for unit-level and State-level EFNEP operations. These guidelines are used primarily as specifications for overall Program establishment, operation, and evaluation; they also provide a common and consistent basis for evaluating the need for changes in EFNEP structure.

National Workshops. Since 1968 national EFNEP administration has sponsored five national workshops. One of the important purposes of these workshops was to promote and ensure Program growth. This was accomplished by introducing new educational materials and methodology for youth and home-makers. The workshops investigated the need and process of staff development. Policy guidelines were clarified, Program status was assessed, and the results of evaluative studies were introduced.

National Task Forces. At various points in the evolution of EFNEP, national task forces were convened to focus on Program concerns. Task force activities resulted in development of:

- ✓ A manual for professionals on how to implement and supervise an education program with paraprofessional staff.

- ✓ Position statements and educational materials in food and nutrition subject matter for the youth and adult components of the Program.
- ✓ Career ladders for paraprofessionals.
- ✓ Development and test of a series of food and nutrition lessons for youth and a series for adult audiences.
- ✓ Training sequences and materials for recruiting Volunteers.
- ✓ Guidelines and materials for the supervision of paraprofessionals.
- ✓ Establishment and operation of a national EFNEP Reporting System.
- ✓ Establishment and implementation of a Progression Model for youth and families through EFNEP and into other programs.
- ✓ Teaching and applying educational principles in EFNEP adult and youth Program components.
- ✓ Improved techniques for utilizing information currently available in the Program.

Surveys and Financial Reviews. In keeping with a commitment made to the General Accounting Office (which works for and reports directly to Congress), Extension conducts EFNEP surveys and financial reviews on a continuous basis. The purpose of the surveys and financial reviews is to assess the status of the Program; they serve as a review of Program performance relative to EFNEP objectives, audience, targeting, Program content and methodology; recruitment, development and involvement of Volunteers, supervision of Program and staff, Program development and affirmative action. Through the use of selected questions with staff and participants and the review of financial records, the status of the Program is assessed according to the policy guidelines. Results of these surveys and financial reviews have strengthened State programs in achieving the objectives.

Studies and Evaluations. Both periodic and aperiodic evaluations of status and trends of EFNEP operations address Program accountability relative to the intent of Congressional funding. Analyses of demographic and food behavior data collected in the EFNEP Reporting System support routine administrative monitoring of the Program. EFNEP personnel collect these data at six-month intervals, providing the national office with a biannual report of accomplishments measuring important indicators of Program targeting, efficiency, and effectiveness.

In addition to routine evaluation, a number of ad hoc evaluation efforts have been initiated by SEA-Extension. These studies, carried out by both private contractors and USDA, have addressed a wide variety of issues central to the overall administration and improvement of EFNEP. Some of the topics covered are:

- ✓ Overall evaluations of the success of the Program in meeting stated goals.
- ✓ Specific studies of the impact of EFNEP on its Program audience.
- ✓ Comparisons of EFNEP food stamp recipients and food distribution program recipients with nonrecipients.
- ✓ Progression of families through EFNEP.
- ✓ Characteristics of Program Aides, including pre-EFNEP and post-EFNEP employment histories.
- ✓ Evaluation of youth and adult instructional materials and methodology in teaching.
- ✓ Development and evaluation of a Progression Model.

In addition to these nationally commissioned studies and evaluation, a large number of State and local research efforts have been carried out. An index to these studies is presented as an Appendix to this report.

SHARPENING PROGRAM FOCUS

Some Program redirection resulted from Program evaluations as well as from Congressional mandates. Some of the most important of these are described in the following paragraphs.

Establishment of the 4-H Youth Component. Work with youth has been a part of the Program since its beginning, but implementation and structure of the youth component was not initially specified. In 1970 Congress authorized that \$7.5 of the \$30 million budget be earmarked for carrying out EFNEP with youth in depressed urban areas. Many of the characteristics of CES which simplified establishment of the adult EFNEP component were also available for the initiation of activities with youth:

- ✓ CES's prior experience in working with youth in traditional 4-H rural programs and also in urban areas. Techniques for working with low-income youth in a nutrition program required some modification of existing organizational, administrative, and educational structures. The basic 4-H model served admirably.
- ✓ Access to expertise in various technical areas assured efficient development of Program materials by CES.
- ✓ CES existed at different levels of government--county, State, and national--assuring a timely, comprehensive, and coordinated national educational effort.

Concentration on Families with Young Children. Early in the course of Program operations, the decision was made to focus primarily on families with young children. Since habits and preferences can be influenced more easily at a younger age, and since effects of malnutrition are most pervasive in young children, a focus on families with young children would have maximum long-lasting impact on the nutritional practices of the population.

Separation of Food Stamp and non-Food Stamp Data. As of March 1977, sample unit data in the EFNEP Reporting System have been separated on the basis of food stamp reciprocity. Using these data, EFNEP national management can determine differences in homemaker, family, and food behavior characteristics between participants receiving food stamps and those who do not. In addition, the data separation provides an opportunity to examine the joint effects of EFNEP and the nationwide USDA Food Stamp Program.

Development and Implementation of the Progression Model. From very early stages of operation, EFNEP staff at all levels expressed concern about criteria for graduating or terminating families from the Program. Maintaining working relationships with families after they had achieved the objectives of the Program--appropriate behavior and knowledge changes--was inefficient. On the other hand, continuing working sessions with homemakers who showed no improvement was likewise an inefficient process. Resources used in both cases could be more effectively applied to recruit and teach new families. A study of the ways in which homemakers typically advanced through the Program resulted in a model of EFNEP progression. Food recalls and food behavior checklists provide input to the model, which Aides use to track the progress of individual families on charts. Aides also use the progression procedure summaries to assist in judging whether or not to retain families in the Program. These tools, along with the judgment of the EFNEP staff, provide quantitative assessment for the progression of families.

ENHANCING PROGRAM VISIBILITY

Since its inception, the need for public awareness of EFNEP has been recognized at all levels of the Program. Information about EFNEP accomplishments, operations, and objectives has been disseminated to the public in a variety of ways: radio, TV, special information days, local newspaper articles, community meetings, picture stories, newsletters, and through other Extension programs and publications. Public awareness and consideration of EFNEP activities has been and continues to be an important part of Program operation.

**THE ACCOMPLISHMENTS OF THE EXPANDED FOOD AND
NUTRITION EDUCATION PROGRAM**



THE ACCOMPLISHMENTS OF THE EXPANDED FOOD AND NUTRITION EDUCATION PROGRAM

SUMMARY

An evaluation of all sources of information on the impact of EFNEP yields some interesting and consistent conclusions:

- ✓ **Throughout its history EFNEP has had a positive impact on the diets of its Program families.** There is some evidence that Program effectiveness in improving dietary habits has increased over the life of EFNEP.
- ✓ **On entering EFNEP, Program homemakers have reported and continue to report relatively poor diets.** The need for diet improvement of homemakers entering EFNEP continues to be greatest in the milk and vegetables and fruits food groups. It is in these two food groups that Program homemakers report the greatest dietary gains.
- ✓ **EFNEP continues to seek out, enroll, and work with families with extremely limited financial resources.** The constant-dollar income of families currently entering the Program is, on the average, lower than that for families participating at the inception of the Program.
- ✓ **The proportion of Program families receiving food assistance has increased throughout the life of the Program.**
- ✓ **EFNEP is working with an increasingly younger Program homemaker audience.** This finding is consistent with Program objectives for reaching families with young children.
- ✓ **EFNEP continues to focus on racial and ethnic minorities.** Nonwhite Program homemakers comprise a majority of EFNEP participants, and have since the inception of the Program.
- ✓ **EFNEP participants continue to have much lower educational attainment than the American population as a whole.** The percentage of EFNEP homemakers with less than an eighth grade education has been dropping over the Program's history, but this drop is undoubtedly due to the more strict enforcement of compulsory education regulations in recent years.
- ✓ **There are indications that EFNEP is increasing or holding its own in its efficiency in working with Program families.** The number of full-time-equivalent Aide visits per Program family has increased steadily, while the number of Program families per Aide has remained relatively constant over the last several years.

In comparing EFNEP families which receive food stamps with those which do not, it is evident that food stamp families:

- ✓ **Have much lower incomes.** This result is not surprising, since eligibility for food stamps is dependent on family income. It should be noted, however, that the income data for EFNEP families do not include the value of food stamps received as income.
- ✓ **Have much lower food expenditures.** Again, this result is not surprising, since one result of food stamp reciprocity is to lower family cash outlay for food.
- ✓ **Have substantially larger families.** This finding tends to amplify the food outlay and family income information. Income and food outlay per family member is thus even lower for food stamp families.
- ✓ **Have higher participation levels in other forms of assistance programs.** This statement is true for welfare participation, school lunch programs, and FHA participation. Food stamp families have lower incomes than non-food stamp families, and thus have a greater need for all forms of assistance programs.
- ✓ **Have a somewhat greater percentage of children in their families.** A larger family size magnifies problems associated with inadequate income. Thus, families with a larger percentage of children are, all other things being equal, more likely to need food stamp assistance.
- ✓ **Are more likely to be involved in individual rather than group working sessions.** The reason for this difference is not clear; it may be that food stamp homemakers, because of their limited resources, have less flexibility to attend group sessions.
- ✓ **Have slightly younger homemakers.** While there is no substantial difference in the youngest category of homemakers, families receiving food stamps have many fewer homemakers in the oldest age category.
- ✓ **Have homemakers with somewhat less education.** Education being related to income, this difference probably bears on the reasons for family need for food stamps.
- ✓ **Enter the Program with somewhat poorer diets than those who do not receive food stamps.** Differences are most marked in the vegetables and fruits food group, but are also evident to a lesser degree in other food groups and in overall diets.
- ✓ **May improve their diets slightly more than those who do not receive food stamps.** After 24 months of Program participation, differences in reported food group servings between the food stamp and non-food stamp groups have substantially disappeared except in the vegetables and fruits food group.

Program Impact: *Effects of the Program with the Target Population*

The impact of EFNEP is demonstrated in a variety of ways. Throughout the course of the Program, EFNEP management has sponsored a number of national studies to assess the impact of EFNEP on its audience. There have also been a number of State and local studies performed by local CES groups, candidates for advanced degrees, and by other agencies and organizations with an interest in the aims and goals of EFNEP. Lastly, there is the EFNEP Reporting System, which provides national, State, and county EFNEP administrative personnel with a continuing source of data on the status and trends in the Program.

NATIONAL STUDIES

Throughout its ten-year history, EFNEP has sponsored studies of the Program as a whole, and of selected portions of the Program. Brief summaries of the objectives and findings of these studies are presented below.

Expanded Food and Nutrition Education Program; Program Evaluation January to July 1969 (Datagraphics, 1969). This study was the first external evaluation of EFNEP on a national level. Data were obtained from selected Program units in seven States. Sources of information included data extracted from 2,189 Family Records and interviews with 438 Program homemakers, local professional and paraprofessional EFNEP staff, State-level CES personnel, and personnel of other agencies operating in the study areas. Major findings of the evaluation include:

- ✓ EFNEP came into being quickly and with a minimum of false starts.
- ✓ Participant acceptance of the Program was high.
- ✓ There were many signs that the Program was in a position to achieve its stated objectives, some signs that objectives were being achieved, and no signs that objectives could not be achieved. In each of the food groups where average servings were inadequate when families entered the Program, the situation had changed for the better after six months of participation.
- ✓ The use of indigenous Program Aides worked well, with great potential for the future of the Program.
- ✓ Much of the variation in Program effectiveness was apparently attributable to differences in the capabilities and interest of the supervising professional Home Economist at the unit level.

- ✓ The target population was being reached, but there was need for improved techniques for working with those in greatest need. About two-thirds of urban families and over 90 percent of rural families had an income that was 75 percent or less of a minimum requirement based on the cost of food in the USDA Basic Low-Cost Food Plan.
- ✓ There was a need for improvement in the management techniques of the supervising professional Home Economist and for improvement in the working relationships of EFNEP with other agencies.
- ✓ The future of the Program was being placed in jeopardy by the lack of adequate resources expended for development of instructional materials specifically tailored to the Program audience.

Expanded Food and Nutrition Education Program; Program Performance 1971 (Datagraphics, 1971). This study was a second national evaluation of EFNEP. Data for the study were derived from Program records (including 3,120 Family Records) and visits to 21 units in 10 States. Six hundred ninety-eight Program homemakers were interviewed.

Objectives of the study included:

- ✓ Validation of previous study results.
- ✓ Characterization of Program activities and achievements as related to Program variables.
- ✓ Assessment of new dimensions or phases of Program operation, including the newly established youth component and the use of Program Volunteers.
- ✓ Identification and assessment of problems and barriers encountered beyond the formative stages of the Program.
- ✓ Identification of the need for and/or opportunities to expand or modify the Program beyond its current scope so that it would remain responsive to participant needs and growth potential.

Significant findings of the study include:

- ✓ Nutrition education objectives were being met, but there was need for greater precision in the allocation of effort. Specifically, there was a need for nutritionally knowledgeable homemakers to be cycled more quickly through the Program.
- ✓ Although the Program promoted improved nutrition-related practices, only indirect means for assessment of these improvements existed.

- ✓ The role of Extension and its use of indigenous Aides for nutrition education of low-income families continued to be both appropriate and effective.
- ✓ Supervising Home Economists continued to work diligently and conscientiously, but their capabilities were becoming increasingly taxed by the continuing growth of the Program and the consequent lack of time for other Extension activities.
- ✓ The Program continued to reach the target population.
- ✓ There was need to strengthen the link between the adult and youth components of the Program to maximize impact on the dietary practices of the target population.
- ✓ There was some confusion about the objectives of and methods used in the youth component of EFNEP.
- ✓ The Program had made progress in establishing appropriate relationships with other nutrition-related programs and organizations within the communities in which EFNEP units operate.

Impact of the Expanded Food and Nutrition Education Program on Low-Income Families: An In-Depth Analysis (Feaster, 1972). The data in this study were obtained from Program records of more than 10,500 families from 134 sample units in 35 States and Puerto Rico. This sample represents about 6 percent of all families enrolled in EFNEP prior to October 1969. Initial food consumption patterns of more than 9,000 families were investigated, and changes in food consumption patterns were investigated for more than 2,800 Program homemakers. Demographic and family variables were also investigated. Key findings of this study include:

- ✓ Most families investigated had low incomes, lived in urban areas, and were from minority racial and/or ethnic groups. Average family size was 4.8 persons.
- ✓ At least 90 percent of the families studied were in the lowest one-quarter of the income distribution for the United States as a whole.
- ✓ Average family income was about \$2,700; on the average, about one-third of this income was spent on food.
- ✓ Many of the families received some form of food or income assistance. About one-third of the families received welfare assistance; approximately 15 percent of the families participated in the USDA Food Stamp Program; about one family in five participated in the USDA food distribution program.
- ✓ The average food expenditures by EFNEP families (not including the value of bonus food stamps, food received as gifts,

or the value of foods received in food assistance programs) was only about one-third of the amount recommended in the USDA Economy Food Plan.

- ✓ Less than 10 percent of the families had completely adequate diets at Program entry, as defined by number of servings in the Basic Four Food Groups. About 40 percent of the families reported no serving in at least one of the food groups at Program entry.
- ✓ After six months of EFNEP participation, the percentage of families reporting adequate diets had increased from about 4 percent to about 11 percent. In this same time period, the percentage of families reporting at least one serving in each of the food groups had increased from 57 percent to 72 percent.

Families in the Expanded Food and Nutrition Education Program; Comparison of Food Stamp and Food Distribution Program Participants and Nonparticipants (Feaster & Perkins, 1973). Data for this study were drawn from a sample of 10,500 homemakers who participated in EFNEP during 1969. From this group, four subgroups were identified for subsequent analysis: (a) families receiving USDA food stamps; (b) families receiving USDA donated foods; (c) families eligible for one or the other of the USDA food assistance programs, but who were not participating in either; and (d) families who were not eligible for either USDA food assistance program.

Important results of this study include:

- ✓ Families in each of the four groups in the study had common characteristics of low income, predominantly urban residence, predominantly minority racial or ethnic backgrounds, and relatively low educational levels.
- ✓ Sampled homemakers receiving food stamps, in comparison to food distribution recipients and families eligible but not participating in a USDA food assistance program, had better diets, larger families, and higher incomes.
- ✓ About 25 percent of the homemakers sampled were eligible for USDA food assistance, but were not participating. Participation in USDA food assistance programs increased by about 14 percent during the course of the study.
- ✓ Families who were eligible for USDA food assistance but were not participating spent a greater percentage of their monthly income for food than did families in any of the other groups.
- ✓ Compared with the other groups, families which were not eligible for USDA food assistance were more likely to: reside in an urban area, spend a smaller percentage of

their monthly income on food, and have a better diet. These families were less likely to be black and to be receiving any form of welfare assistance.

- ✓ When family income was increased, families who were not eligible for food assistance programs tended to allocate less of that increase to food purchase than did families in other study groups. The proportional allocation of the ineligible groups was roughly one-half to one-third that of families who were eligible for assistance.

Role of Aides in the Expanded Food and Nutrition Education Program (Economic Research Service, ERS/USDA, undated). This study examined the socioeconomic and work-related characteristics of persons who had been employed as paraprofessional Program Aides in EFNEP. Data were gathered from a sample of active Program units; 843 completed questionnaires were obtained from 235 EFNEP units. In addition, 512 questionnaires were obtained from Program Aides who had left EFNEP. Important findings of this study include:

- ✓ Aides were slightly younger and better educated than the homemakers with whom they worked. Aides averaged 11 years of formal education, as compared to 8 years for Program homemakers. Seventy percent of the Aides had completed 12 years of education; 20 percent had attended college. Of Aides who attended college, the average period of attendance was 2.3 years.
- ✓ Participation in welfare and USDA food assistance programs decreased among Aides' own families as a function of Program employment. In families of Aides who had left the Program, participation in food and financial assistance programs was lower than prior to their employment in EFNEP.
- ✓ Aides worked an average of 34 hours per week.
- ✓ Aides reported feeling that the Program families with whom they work benefit significantly from their participation. But, Aides also felt that the progress which they and their own families made was greater than that made by the families with whom they worked.
- ✓ Supervising Home Economists indicated a desire to expand the use of group meetings in working with Program families, although they recognized that this technique could cause transportation problems and might result in decreased homemaker incentive and interest.
- ✓ Supervisors also noted that Aides had a tendency to continue working with families already enrolled rather than graduating or dropping them and recruiting new families.

An Evaluation of the Mulligan Stew 4-H Television Series (Shapiro, Bale, Scardino, & Cerva, 1974). This study presents the results of an evaluation of the *Mulligan Stew* television series conducted early in 1974. Produced by EFNEP, the series consists of six half-hour TV shows designed to teach youth about nutrition. The study sample included more than 3,000 youth in the 4th, 5th, and 6th grades in six States. The results showed an overall positive impact on youth exposed to the *Mulligan Stew* series:

- ✓ Youth knowledge about nutrition increased.
- ✓ Food-related behavior of 4th and 5th graders was positively, though limitedly, affected.
- ✓ Based on a rather small sample size and therefore interpreted with caution, the incidence of breakfast consumption increased.
- ✓ Fourth graders reported an increased feeling that they could learn about nutrition from their peers. No statistically significant increase occurred among 5th and 6th graders.
- ✓ Exposure to the series effected greater positive changes when viewed at school rather than at home.
- ✓ The use of a comic workbook in conjunction with the television shows facilitated the positive impact of the Program.
- ✓ Viewing the *Mulligan Stew* series had a powerful impact on youth awareness of 4-H programs.
- ✓ The series was well targeted, but seemed to be more effective with 4th and 5th graders than with 6th graders.
- ✓ The *Mulligan Stew* series had positive impacts even on students with relatively poor reading abilities.
- ✓ Teachers participating in the study were generally positive in their reaction to the series.
- ✓ Teacher involvement in follow-up activities had no noticeable effect on the impact of the series on youth.
- ✓ All the important nutritional concepts were included in the series, though emphasis and accuracy of the presentations varied somewhat.
- ✓ In some instances, attention-getting and attention-sustaining devices were not effectively used in *Mulligan Stew* to reinforce nutritional messages.
- ✓ In comparison with other 4-H outreach methods, *Mulligan Stew* reached large numbers of children at a relatively low cost per child.

- ✓ *Mulligan Stew* improved the image of Extension among TV broadcasters, the educational community, and its own Extension professional personnel.

On the basis of these study results, it was recommended that TV programming continue to be used by Extension Service. It was noted, however, that goals and objectives set for *Mulligan Stew* were somewhat optimistic, particularly given the mass of conflicting nutrition and nutrition-related information and experiences to which children are likely to be exposed. The study suggests that a more intensive educational program would be necessary to produce a more telling and consistent impact.

The Phonoviewer as an EFNEP Teaching Method (Voichick & Steele, 1975). In this study, State, county, and unit-level EFNEP personnel were interviewed about the use of the Phonoviewer as a teaching aid. There were two phases in the study. In the first phase, 65 State Program Coordinators and 61 Food and Nutrition Specialists were selected for interviewing. In addition, a sample of 329 county Home Economists was selected. For the county sample, emphasis was placed on 16 States which had purchased more than 250 Phonoviewer shows. Two hundred fifty EFNEP units in these States were included in the sample. Fifty units were also randomly sampled from States which had purchased at least 50 Phonoviewer shows. Completed questionnaires were returned from 50 Program Coordinators, 50 Food and Nutrition Specialists, and 213 county Home Economists. Results of this first-phase survey indicate that:

- ✓ EFNEP personnel perceived the Phonoviewer to be a useful teaching aid.
- ✓ About half of the active EFNEP units had at least one Phonoviewer and most of the Phonoviewer shows.
- ✓ Phonoviewers are typically used with 4-H EFNEP youth, adult Program participants, and in Aide training.
- ✓ Most respondents felt that Phonoviewer shows were well developed and useful.
- ✓ Most respondents indicated a need for more Phonoviewer shows.
- ✓ There was an expressed need for mixed-media supplements to Phonoviewer shows.

In the second phase of the study, four States with substantial Phonoviewer use were selected. Three classes of personnel were selected for inclusion in the survey:

- ✓ One hundred fifty-two county Home Economists who were active in EFNEP and who had not been interviewed in the first phase of the study; 126 of these Home Economists completed questionnaires.

- ✓ Four hundred forty Aides from EFNEP units within the four States were randomly selected from personnel rosters supplied by the States; 426 of these Aides (96 percent) were interviewed by telephone.
- ✓ Program participants (youth and adults) were interviewed by 12 Home Economists suggested by State personnel, A total of 394 participants was interviewed.

A number of general findings derived from analyses of the results of the second phase of the study:

- ✓ EFNEP participants associated Phonoviewer instruction with specific insights and activities.
- ✓ EFNEP Aides indicated that the Phonoviewer is an effective teaching aid.
- ✓ Phonoviewers were widely used in a variety of situations by Aides and Home Economists. Use of the Phonoviewers was contingent on availability of equipment and films.
- ✓ Participants, Aides, and Home Economists reacted favorably to the available shows. Respondents indicated a need for increased clarity in Phonoviewer sound tracks and a greater number of shows for use with Spanish-speaking clientele.

EFNEP...Accomplishments and Future Needs (Leidenfrost, 1975). This study relied heavily on the statistical summaries which are produced from EFNEP Reporting System data, and on analyses and syntheses by ERS of a variety of EFNEP reports. Essentially, it is a status report on the Program, combined with an examination of the implications of these results for the future of EFNEP. Important findings and observations in this report include:

- ✓ As of June 1974, more than 24,000 Aides had been trained by the Program. At that time 5,300 Aides were actively working with EFNEP. A total of about 1,077,000 families had been involved in working meetings with an EFNEP Aide. About 330,000 families were being reached annually.
- ✓ At the end of one year of participation in EFNEP, more than 19 percent of Program families serve the nutritionally recommended dietary allowances (two servings each of milk and meat, four servings of fruits and vegetables, and four servings of breads and cereal) to their families. After 30 months of participation in EFNEP, the percentage of Program homemakers reporting at least one serving from each of the food groups increased from 56 to 79 percent.
- ✓ An estimated 1.8 million families enter the poverty group each year. The annual turnover in this group is roughly 33 percent. About 83 percent of the audience potentially in need of EFNEP education was still to be reached.

- ✓ Eighty-five percent of the EFNEP families had incomes of less than \$5,000 per year, Sixty-two percent of families enrolled in EFNEP were from minority racial and/or ethnic groups.

Progress of Selected Florida and Georgia Families in the Expanded Food and Nutrition Education Program (Feaster & Perkins, 1976). This study focused on the extent of dietary improvement in several selected Florida and Georgia counties in which there were active units of EFNEP. In addition to diet improvement information, demographic and family information were examined. Significant findings in this study include:

- ✓ The length of time of participation in EFNEP was a powerful determiner of the reported food consumption levels. However, most of the improvement in diet patterns was made in the first 18 months of Program participation. Homemakers who participated in EFNEP six months or less tended to have better diets at that point in time than those who remained in the Program for a longer period.
- ✓ The percentage of homemakers who had good overall diets at the time of their termination from the study tripled that at entry to EFNEP. The actual increase was from about 7 percent to about 21 percent.
- ✓ Compared to those who were active in the Program at the time of the survey in June 1972, homemakers who dropped out of the Program were slightly younger, slightly better educated, and receiving slightly more income per month. They were also more likely to participate in the USDA food distribution program, to own their own home, to make higher monthly housing payments, and slightly more likely to receive non-USDA food assistance.
- ✓ There were no dramatic differences in the food consumption patterns of Program dropouts versus nondropouts. If anything, there was a slight tendency for dropouts to have slightly better diets than nondropouts after equivalent experience in EFNEP.

Characteristics of the 4-H Expanded Food and Nutrition Education Program (Feaster, 1976). This study used information obtained from 99 4-H EFNEP units, representing at that time about 10 percent of all operational units. The purposes of the study were to: statistically characterize 4-H EFNEP youth, Program staff, and Volunteers; describe recruitment techniques, teaching methods, and methods and procedures for evaluation; and review units' perceptions of their accomplishments, problems, and suggestions for improvement.

Major findings include:

- ✓ More than half of the youth in the Program came from families with incomes of less than \$4,000 per year. About 40 percent

of the youth came from families wherein the homemaker was participating in the adult component of EFNEP. Sixty-three percent of the youth participants were girls.

- ✓ On the average, staffing of a 4-H EFNEP unit consisted of about 70 percent of a professional supervising Home Economist, 1.9 paraprofessional Program Aides, and 29 part-time Program Volunteers equalling roughly 0.9 full time equivalent Volunteers per unit.
- ✓ More than two-thirds of the youth in the Program participated in continuing activities; more than one-third were involved in short-term activities--day camps, workshops, etc. Primary teaching methods consisted of games, demonstrations, visual aids, and role playing.
- ✓ In the eyes of the EFNEP personnel at the units, the most noteworthy achievements of the youth component included: increased awareness among the participants concerning nutrition and things pertaining to nutrition; generally improved diets of the youth; and the ability of youth participants to influence or change the nutritional habits of their families.
- ✓ Major problems at the units were identified as the lack of dependable Program Volunteers and the inadequacy of facilities. Better teaching materials and increased staff were mentioned as being priority areas for Program improvement.

A Progression Model for the Expanded Food and Nutrition Education Program: Development and Field Demonstration (Munger & Jones, 1976). The primary purpose of this effort was to develop a model of progression of families through EFNEP, and to develop as a derivative of that model a working tool for use by paraprofessional Program Aides. Using the Progression Model, the Aide can assess the progress of families and decide on future Program activities with those families. The tools developed in the course of this project include:

- ✓ A Scoring Table for the 24-Hour Food Recall, converting the homemaker's food recall data into a single numeric index based on the number of servings from the food groups.
- ✓ A Food Behavior Checklist, permitting Program Aides to organize information about families' nutritional and nutrition-related practices, and to assess the implications of this information.
- ✓ A Scoring Table for the Food Behavior Checklist, converting checklist information into a single index of homemaker food behavior.

- ✓ A Progression Record, permitting the Aide to track the homemaker's progress in relation to total EFNEP objectives, and to relate this progress to expended Program resources.
- ✓ Instructions for using and interpreting the new tools.

Important conclusions of this study are:

- ✓ The Progression Model was shown to be effective in improving the efficiency of EFNEP operations. The procedures were well within the capabilities of the Program Aides.
- ✓ The use of the combination of food recall and food behavior data provided a powerful demonstration of the positive effects of EFNEP.
- ✓ Two years of Program participation were sufficient for most families.

The Effect of Extension Service's Youth Nutrition Lesson Series on Behavioral Change in EFNEP Youth Utilizing Different Educational Environments and Teachers (Boone & White, 1976). This study aimed at determining the effectiveness of Lessons 1 through 6 of the Youth Nutrition Lesson Series in producing behavior change among disadvantaged youth ages 8 to 12 years. It also sought to determine the relationship of various factors (youth characteristics, characteristics of the youth's family, teacher characteristics, and characteristics of the teaching/learning environment) to the degree of nutrition behavior change observed in participants in the 4-H EFNEP component. Profiles of youth, youth's families, and teachers were developed.

The study employed a pretest/posttest design, with two experimental groups and one control group. Subjects in one experimental group were taught by a Volunteer or Aide in small, informal, Extension-type settings. Subjects in the other experimental group were taught by a classroom teacher, Volunteer or Aide in a more formal classroom setting. A total of 1,368 youth from Minnesota, North Carolina, Oklahoma, and Vermont participated in the study.

Assessments of nutritional behavior change among study participants indicated statistically significant increases in:

- ✓ Nutrition knowledge for both of the experimental groups.
- ✓ Nutrition attitude for both of the experimental groups and the control group.

No statistically significant increase was observed in the quality of food intake. Exposure to the Youth Nutrition Lesson Series increased knowledge and effected attitude change in participants regardless of their age, sex, school grade level, residence (rural/urban), or participation in school food programs. Low family income and homemaker's age were associated with

low levels of nutrition behavior change. The greatest nutrition behavior change was effected in youth taught in the informal, Extension-type setting of the home or community center, with lessons lasting a minimum of one hour and held once a week.

STATE AND LOCAL STUDIES

The list of State and local studies dealing with EFNEP activities, procedures, and materials is large and continues to grow. Because these studies touch virtually all phases of EFNEP operations, they serve as a rich source of information for persons interested in the Program. Some of the studies were conducted by local EFNEP units; others were supported by the State CES; still others resulted from research conducted as fulfillment of requirements for degrees at various universities. The results of these studies are too numerous to accurately summarize here, but an index to the contents of State and local reports is provided in the Appendix.

THE NATIONAL REPORTING SYSTEM

From its inception, EFNEP planned carefully for ongoing Program monitoring and evaluation at all levels. The primary source of information on these activities is the EFNEP Reporting System, which provides statistical summaries of operations at the unit, State, and national levels. At the unit level, family background information is collected prior to family enrollment in EFNEP. It is updated at six-month intervals thereafter. These data are used at local, State, and national levels to assess the status of the Program.

The Program Aide also collects information on homemaker food consumption behavior through the 24-Hour Food Recall. The first food recall is completed at Program enrollment, and subsequent recalls are completed at approximately six-month intervals. The food recall was developed as an easily applied tool to be used by the paraprofessional Aides to record baseline and progress data on enrolled homemakers. In use, the Aide asks the homemaker to specify all of the food consumed during the past 24 hours. Foods served are recorded. The Aide then rates homemaker diets according to 2-2-4-4--two servings of meat and milk and four servings of bread/cereal and fruit/vegetables. This scoring is applied consistently throughout the Program to assure that diet information is comparable across different Program units and States.

The 24-Hour Food Recall was selected for use in EFNEP for a number of reasons. The diet assessment method used by EFNEP must be simple and brief. Program homemakers will not likely tolerate lengthy and involved questioning about their nutritional habits, nor will they submit to complicated biochemical and medical tests. Furthermore, the procedure has to be accurately applied by paraprofessional Aides, who may not have the background to collect and interpret detailed information on nutrients in food consumed. The method has to serve as a measure of assessing progress during the homemaker's participation in the Program. This implies repeated diet assessments, which

would not be feasible with complex assessment procedures. The method must help the Aides identify the food group(s) in which homemakers need to improve their diets. This information is vital if Aides are to accurately focus education to meet the most critical nutritional needs of the family. Use of the Four Food Groups permits the Aides to base teaching on a wide variety of foods while considering family nutritional needs and family resources.

The Reporting System also collects information on the numbers of staff within units, numbers of participating families and youth, hours worked by Program Aides, and other administrative information. These data are reported to national EFNEP administration at six-month intervals on two forms:

- ✓ Expanded Food and Nutrition Education Program Unit Report; Report of Families, Aides, Youth, and Volunteers (Form ES-255). This form contains information on the total numbers of staff and participants in each unit; differentiation of these totals on a number of dimensions (e.g., Aides and homemakers dropped and added; number of Volunteers working only with youth, only with adults, or with both youth and adults; number of youth from Program and non-Program families; etc.). Every year, this report is received from each active unit in the EFNEP; at the intervening six-month interval, the completed form is received from a national sample of about 14 percent of the units.
- ✓ Expanded Food and Nutrition Education Program; Sample Unit Report; Characteristics of Families and Youth (Form ES-256). This form contains information drawn from family records. It summarizes the numbers of families participating in certain assistance programs (e.g., food stamps and welfare), the number of persons in the families, the number of families in given income ranges, and other pertinent demographic and personal information about Program families and homemakers. In addition, the dietary habits of homemakers are also presented. At six-month intervals this report is received from the national sample of 14 percent of the active Program units.

Upon receipt of these data by national EFNEP management, they are checked for computing errors. Any irregularities are reconciled by checking with individual Program units. The data are then fed into a computer for subsequent analysis. Information is summarized by national and State totals, and also by groups of units according to unit size.

Analysis and presentation of these data reveal the status and direction of Program activities. The data have been used to present pictorial profiles which trace the history of the Program and provide significant insight into current Program status and trends. The presentation of data is organized in two major sections: Program Status, indicating by charts and narrative discussions the current status of EFNEP; and Program Trends, dealing with the way in which EFNEP has evolved throughout its history, including discussions of Program improvement and degradation.

Each of these two major sections includes information dealing with:

- ✓ Program family and homemaker information, such as: number of participants; improvement in diet; participation in food and financial assistance programs; family income and food expenditure; etc.
- ✓ 4-H EFNEP youth information, such as: number of youth participants; ages of youth; and racial/ethnic backgrounds of youth.
- ✓ Program Aide information, dealing with issues such as: numbers of Aides and full-time equivalent (FTE) Aides; number of Program families per Aide; Aide racial/ethnic backgrounds; etc.
- ✓ Volunteer information, including number of participants and racial/ethnic backgrounds of Volunteers.

Program Status: *Measures of Current Program Operations*

The data and figures in this section indicate the status of EFNEP at the most current measuring period. In some cases, March 1978 is the last reported measure. In other cases, September 1977 represents the last reported measure since some data are collected annually and some semiannually. Since December 1972 some data have been collected on a stratified random sample of units. Table 1, on page 43, lists participation levels of families, 4-H EFNEP youth, Aides, and Volunteers. Table 2, on page 43, presents various measures of Program status for which charts are not practical or necessary.

Figures 2 through 11, on pages 44-48, illustrate the percentage of Program families reporting different numbers of servings in the Basic Four Food Groups after 0, 6, 12, 18, and 24 months of EFNEP participation. Two points about these charts are in order here:

- ✓ Different groups of homemakers are represented at each period of participation. For example, homemakers included in the "At Program entry" group were probably enrolled in February or March of 1978. Those in the "After 6 months" of EFNEP participation were likely to have been enrolled in August or September of 1977.
- ✓ Different numbers of homemakers are represented at each period of participation. Homemakers are continually being cycled in and out of EFNEP, and some leave the Program sooner than others. Thus, the number of homemakers represented shrinks with successively longer periods of participation.

TABLE 1
Participation in EFNEP by Homemakers,
Youth, Aides, and Volunteers

Participation Levels Reported for the Month of September 1977	
Program Families (this month)	210,981
Cumulative Program Families (since Program initiation).....	1,569,071
Non-Program Families	53,452
4-H EFNEP Youth:	
From Program Families	45,662
From Non-Program Families	95,779
TOTAL	141,441
Cumulative 4-H EFNEP Youth (since June 1972):	
From Program Families	829,870
From Non-Program Families	2,658,797
TOTAL	3,488,667
Aides	5,669.0
Full-time Equivalent Aides	4,658.3
Volunteers:	
Working Only with Adults	3,692
Working Only with Youth	9,511
Working with Both Youth and Adults	1,663
TOTAL	14,866
Cumulative Volunteers (since June 1972):	
Working Only with Adults	40,980
Working Only with Youth	213,444
Working with Both Youth and Adults	20,829
TOTAL	275,253

TABLE 2
Program Status Measures

Average Across the Program as of March 1978	
Size of Program Families (persons)	3.9
Aide Visits per Program Family	1.21
Program Family Income at Program Entry	\$351.00
Program Family Food Expenditures at Program Entry	\$125.00
Program Families per FTE Aide	45.29

FIGURE 2.
Percentage of Program Family Homemakers Reporting at Least
One Serving from Each Food Group After Various Periods of
EFNEP Participation (March 1978)

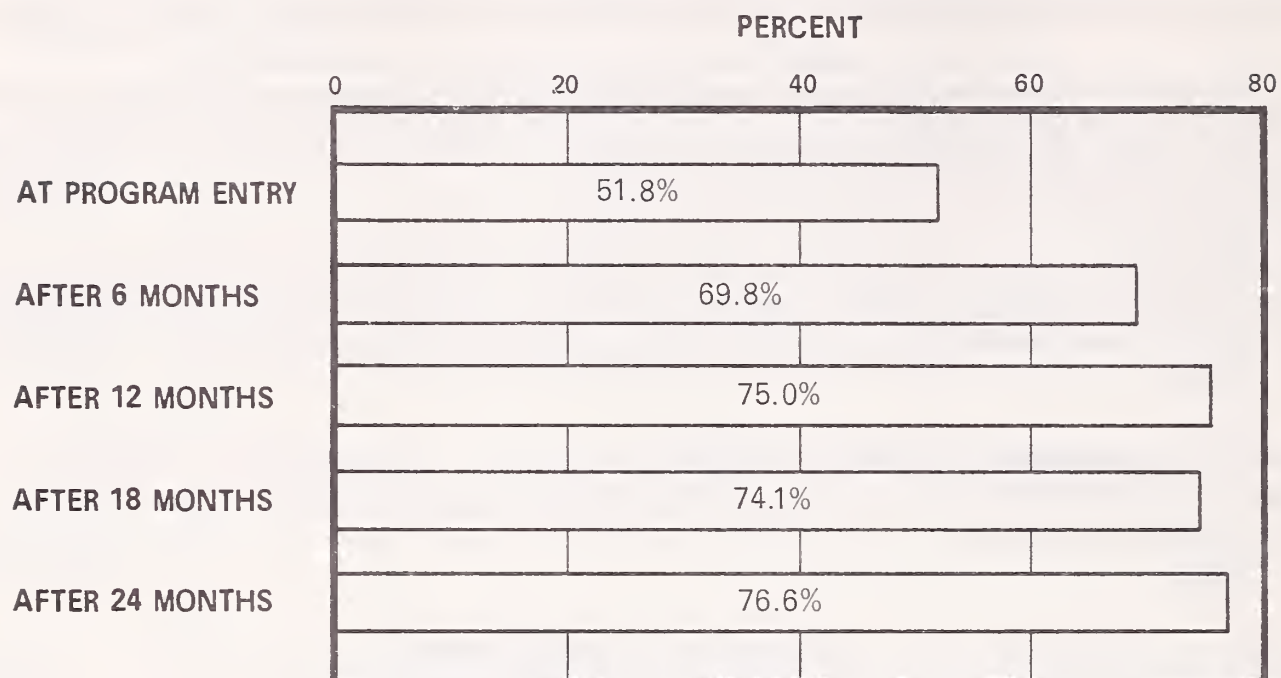


FIGURE 3.
Percentage of Program Family Homemakers Reporting Two or More Servings
of Milk, Two or More Servings of Meat, Four or More Servings
of Fruits and Vegetables, Four or More Servings of Breads and Cereals
After Various Periods of EFNEP Participation (March 1978)

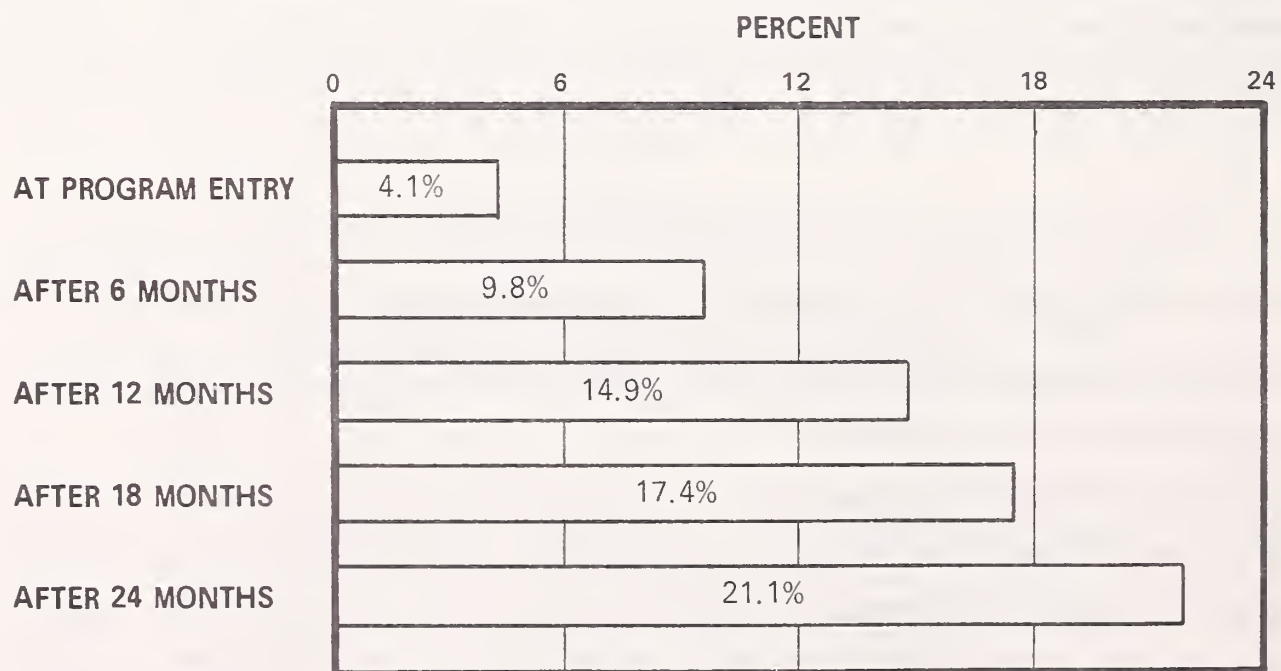


FIGURE 4.
Percentage of Program Family Homemakers Reporting
Two or More Servings of Milk After Various Periods
of EFNEP Participation (March 1978)

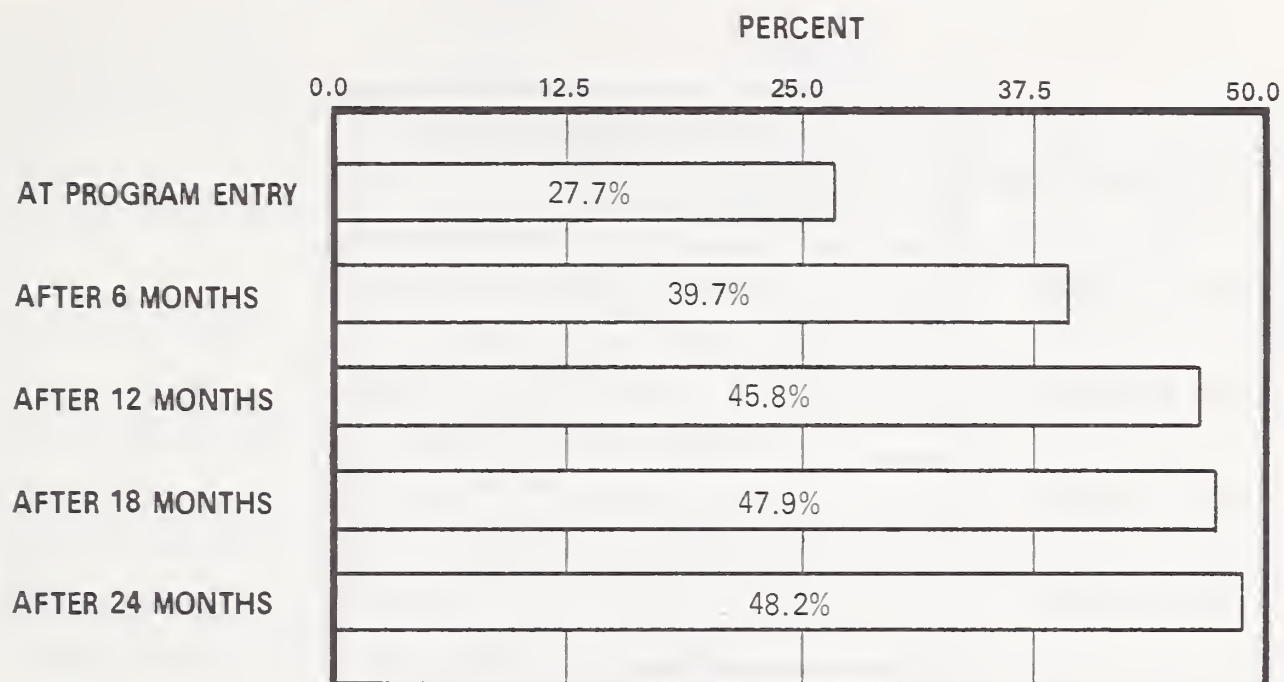


FIGURE 5.
Percentage of Program Family Homemakers Reporting
Two or More Servings of Meat After Various Periods
of EFNEP Participation (March 1978)

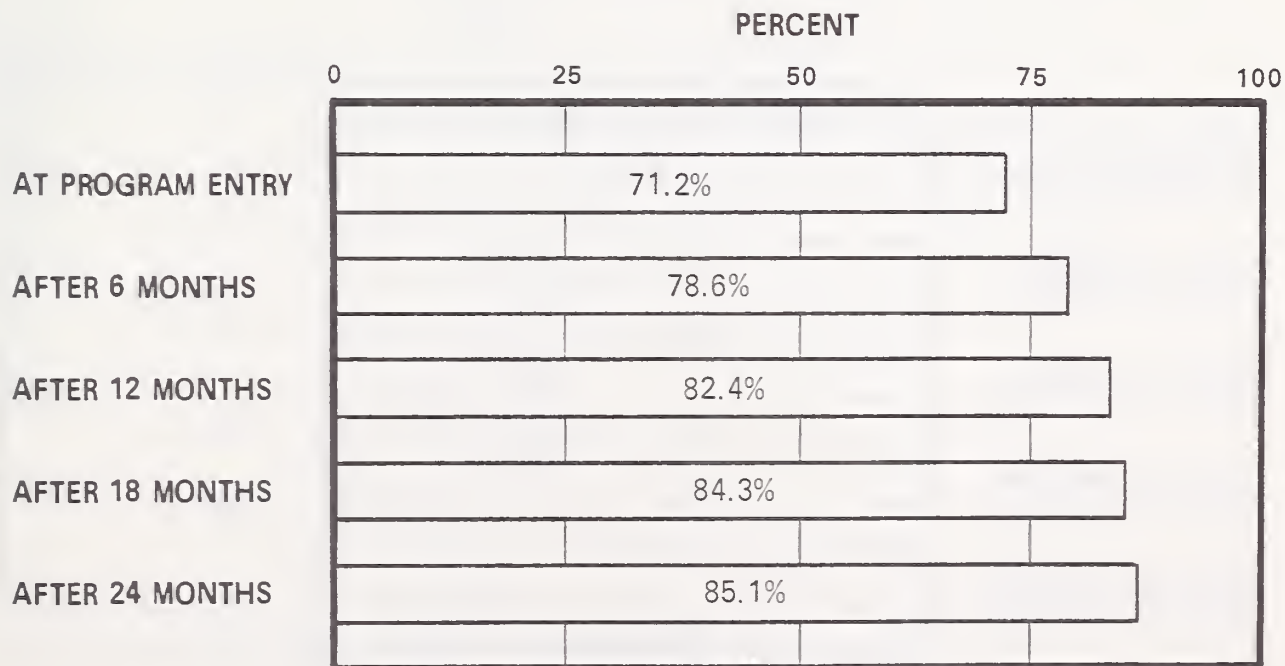


FIGURE 6.
 Percentage of Program Family Homemakers Reporting
 Four or More Servings of Fruits and Vegetables
 After Various Periods of EFNEP Participation (March 1978)

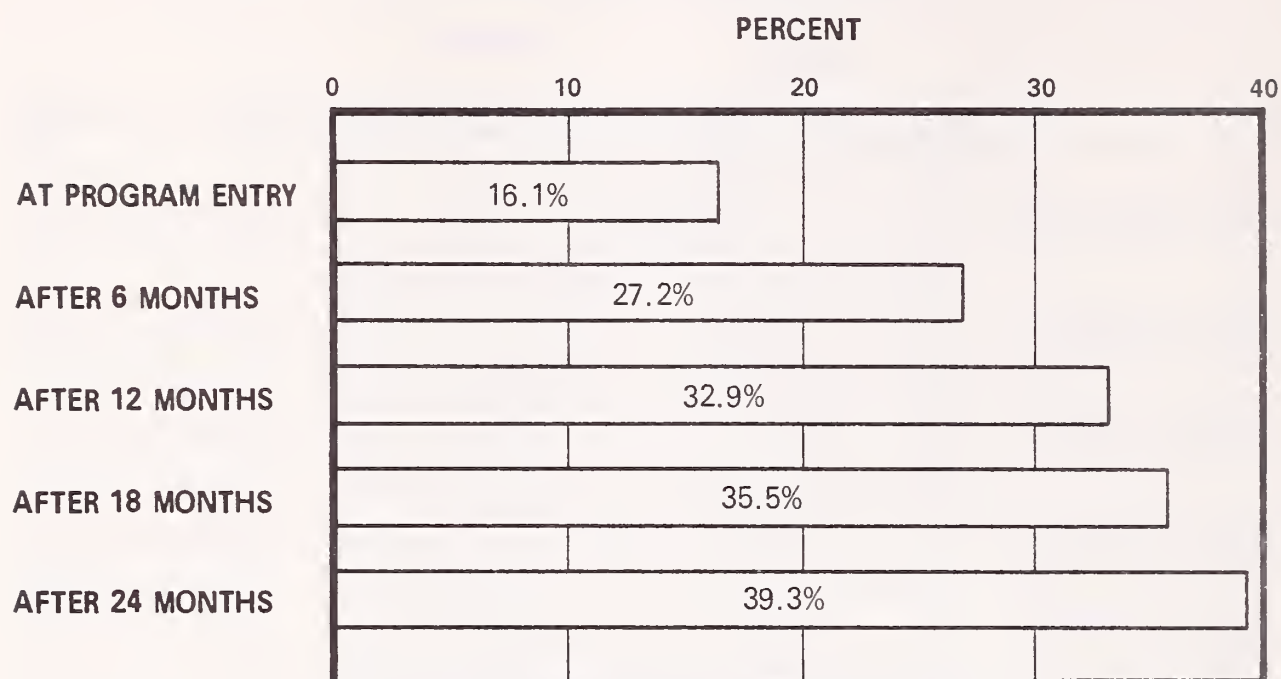


FIGURE 7.
 Percentage of Program Family Homemakers Reporting
 Four or More Servings of Breads and Cereals
 After Various Periods of EFNEP Participation (March 1978)

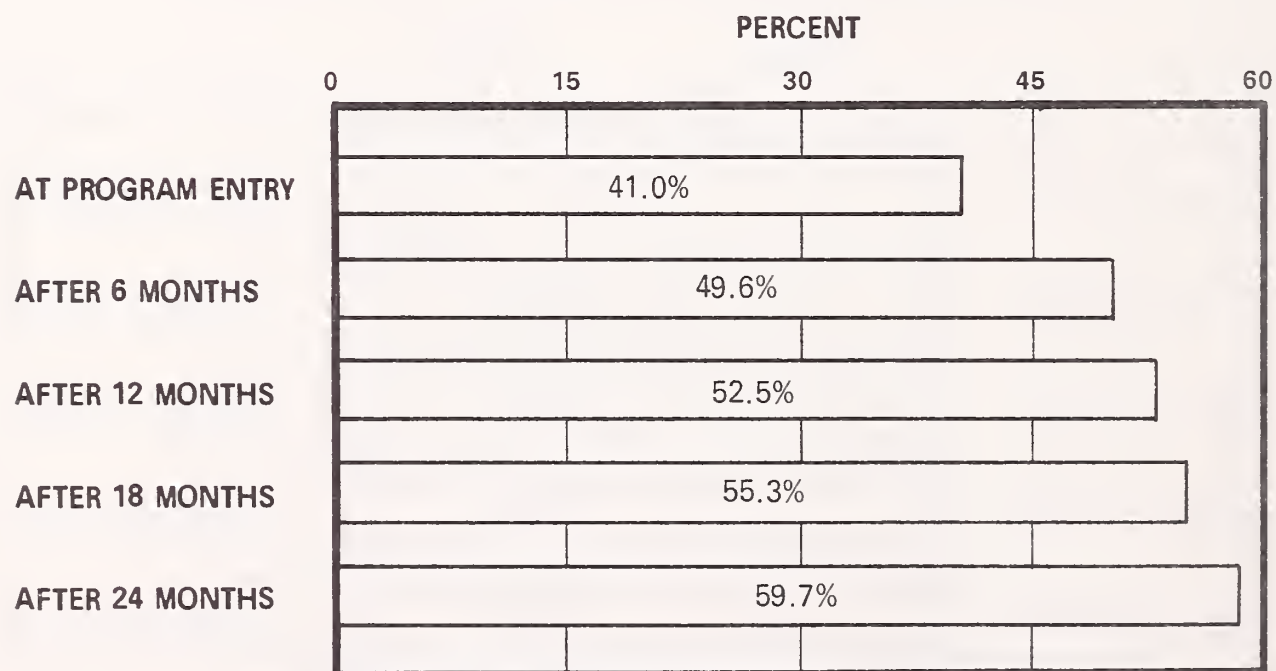


FIGURE 8.
Percentage of Program Family Homemakers Reporting
0 Servings of Milk After Various Periods of
EFNEP Participation (March 1978)

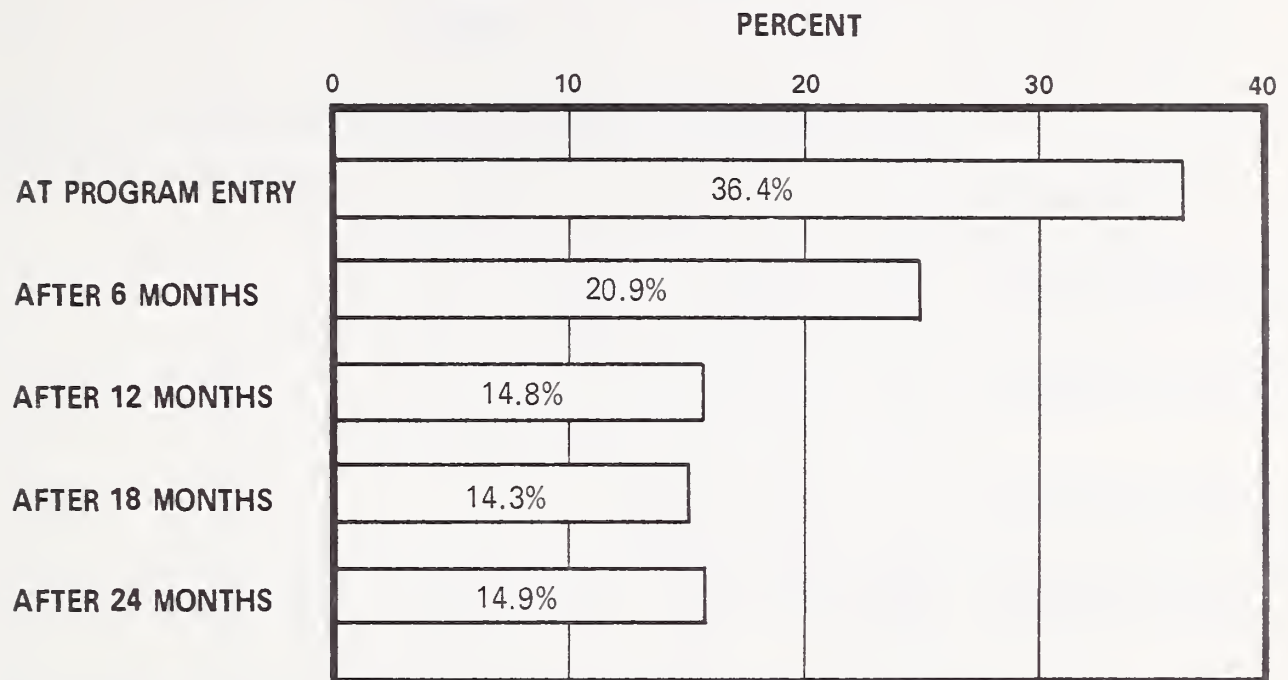


FIGURE 9.
Percentage of Program Family Homemakers Reporting
0 Servings of Meat After Various Periods of
EFNEP Participation (March 1978)

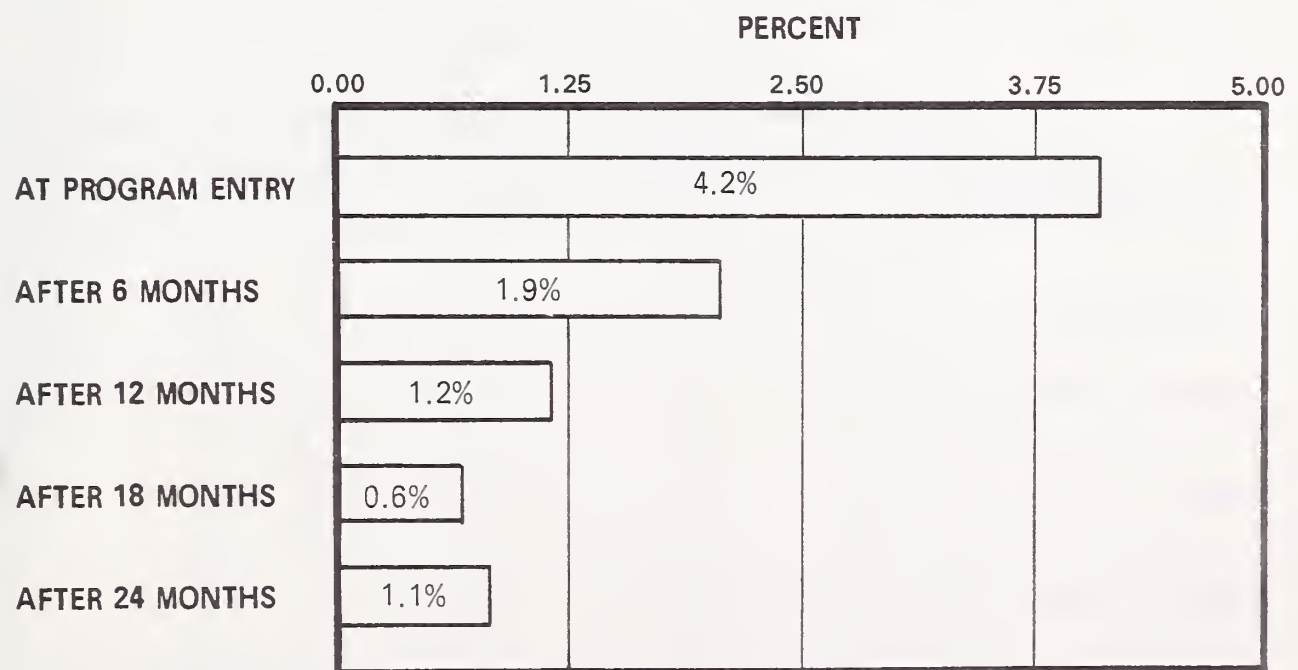


FIGURE 10.
 Percentage of Program Family Homemakers Reporting
 0 Servings of Fruits and Vegetables
 After Various Periods of EFNEP Participation (March 1978)

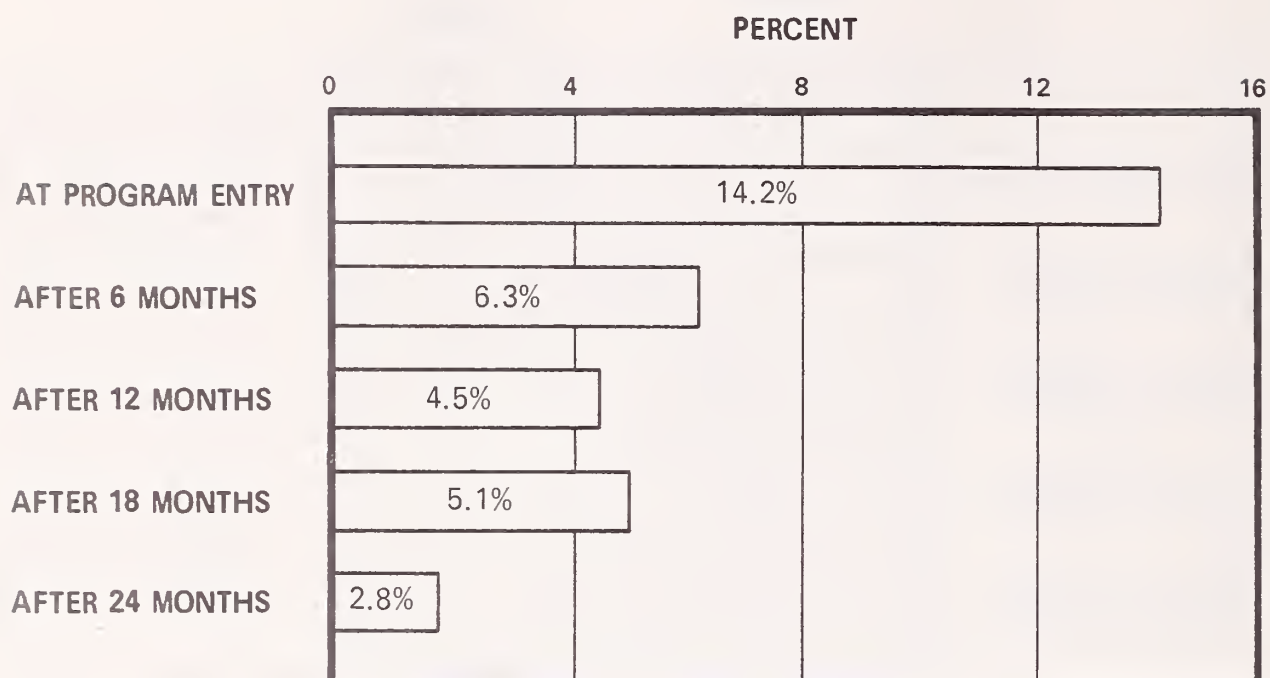
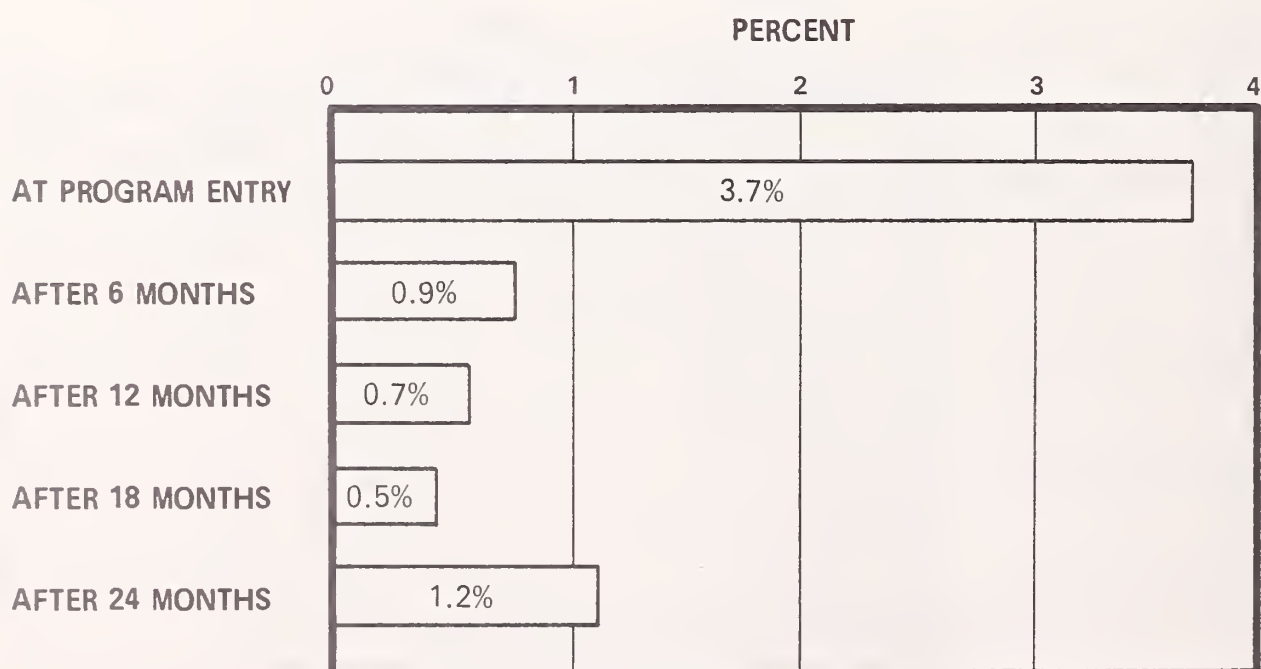


FIGURE 11.
 Percentage of Program Family Homemakers Reporting
 0 Servings of Breads and Cereals
 After Various Periods of EFNEP Participation (March 1978)



The food consumption information indicates that homemakers who have been in EFNEP for longer periods of time tend to have better diets than those who have been in the Program for shorter periods of time. With respect to "adequate servings" (two or more servings each of milk and meat, four or more servings of vegetables and fruits, and four or more servings of breads and cereals) improvement over time is relatively consistent. This is demonstrated for consumption across the Four Food Groups in Figure 3 and for the separate food groups in Figures 4 through 7. Overall, these charts illustrate the continuing improvement of homemaker diets with increasing participation in EFNEP.

On some measures, however, the rate of diet improvement seems to reduce after 12 months or so of participation in the Program. This is demonstrated in Figure 2 for consumption of at least one serving from each of the food groups and in Figures 8 through 11 where reduction of the percent of homemakers consuming zero servings in separate food groups seems to stabilize after about 12 months of participation.

Figures 12 through 29, on pages 50-58, illustrate EFNEP status with respect to a number of categories of participant, Aide, and Volunteer characteristics. In general, these charts illustrate that:

- ✓ Nearly one-half of the families participate in USDA food assistance programs; approximately one-third of the families receive welfare assistance.
- ✓ About three-fourths of the families receive at least one individual working session with an Aide per month.
- ✓ Better than half of the families reside in urban areas.
- ✓ More than half of the Program families' family members are under 19 years of age; of family members in that age category, approximately two-thirds are attending school; of Program family children attending school, the vast majority participate in the school lunch program.
- ✓ Racial/ethnic representation is good for all participant groups: homemakers, youth, Program Aides, and Volunteers. Black and Spanish-surname representation is greater in the homemaker category than in the other categories.
- ✓ Approximately one-third of the youth participants come from Program families.

FIGURE 12.
Percentage of Program Families Participating in
Food Assistance Programs (March 1978)

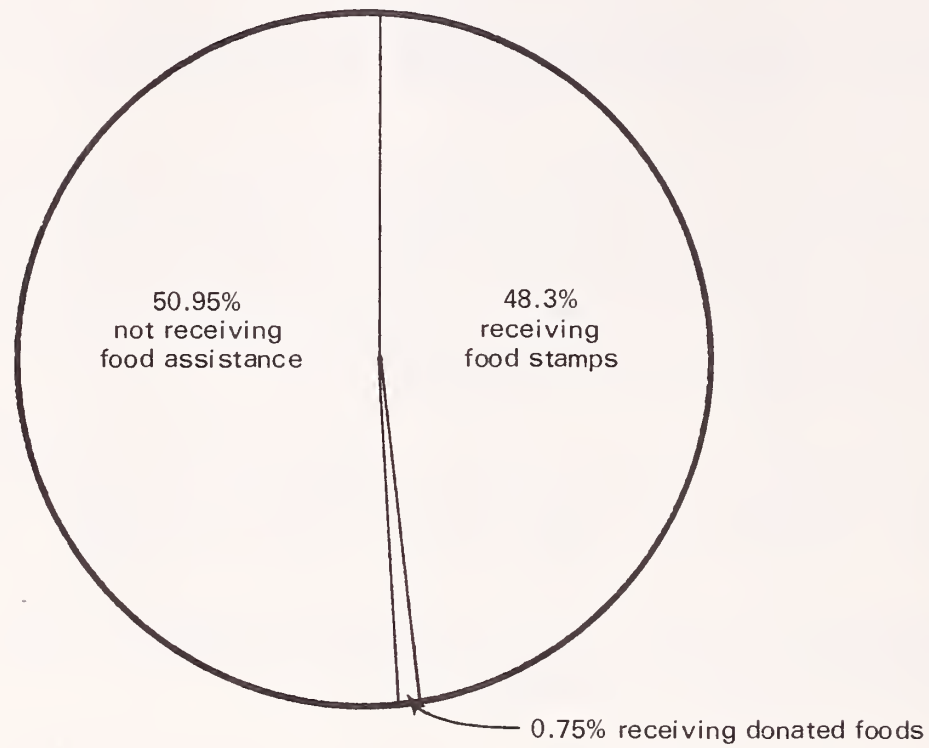


FIGURE 13.
Percentage of Program Families Receiving
Welfare Assistance (March 1978)

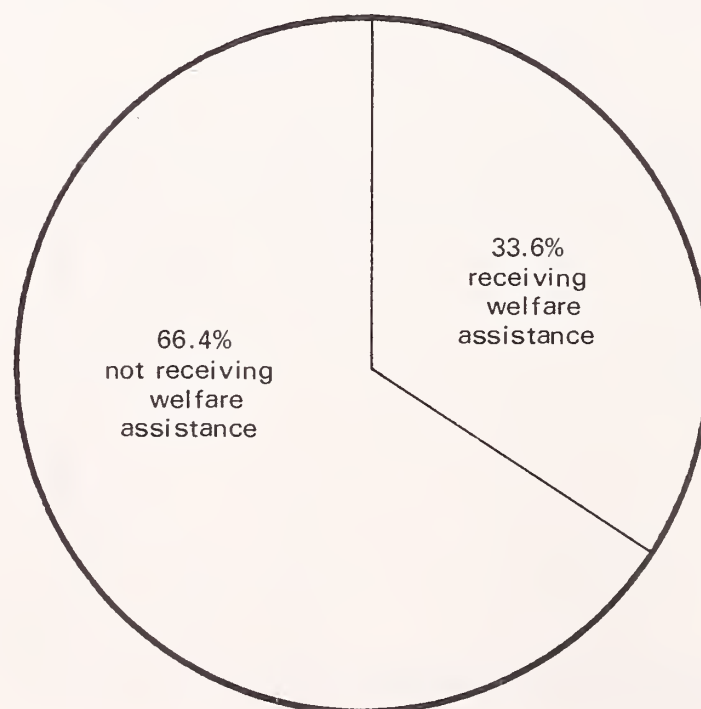


FIGURE 14.
Percentage of Program Families in Various
Monthly Income Categories (March 1978)

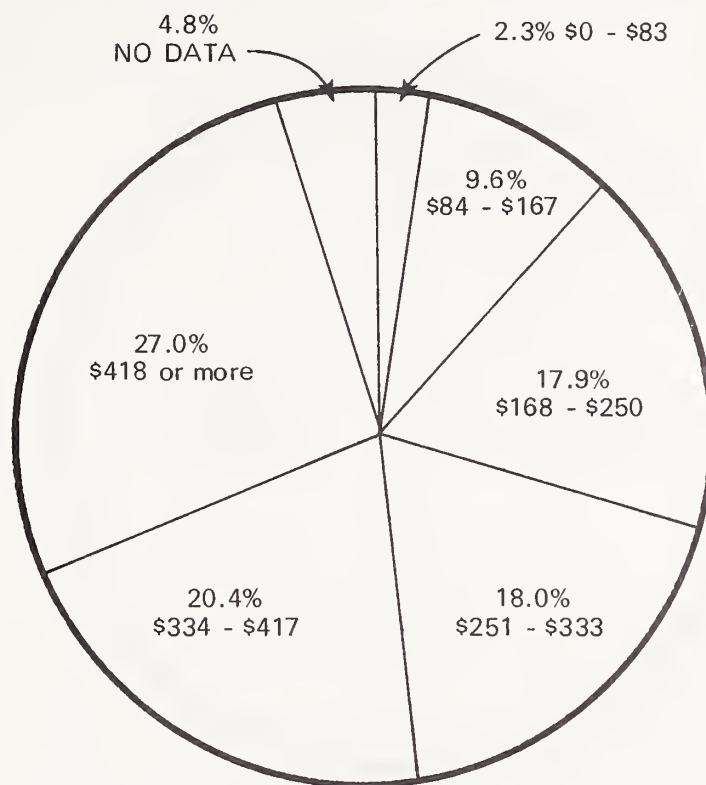


FIGURE 15.
Percentage of Program Families Receiving
USDA/FHA Assistance (March 1978)

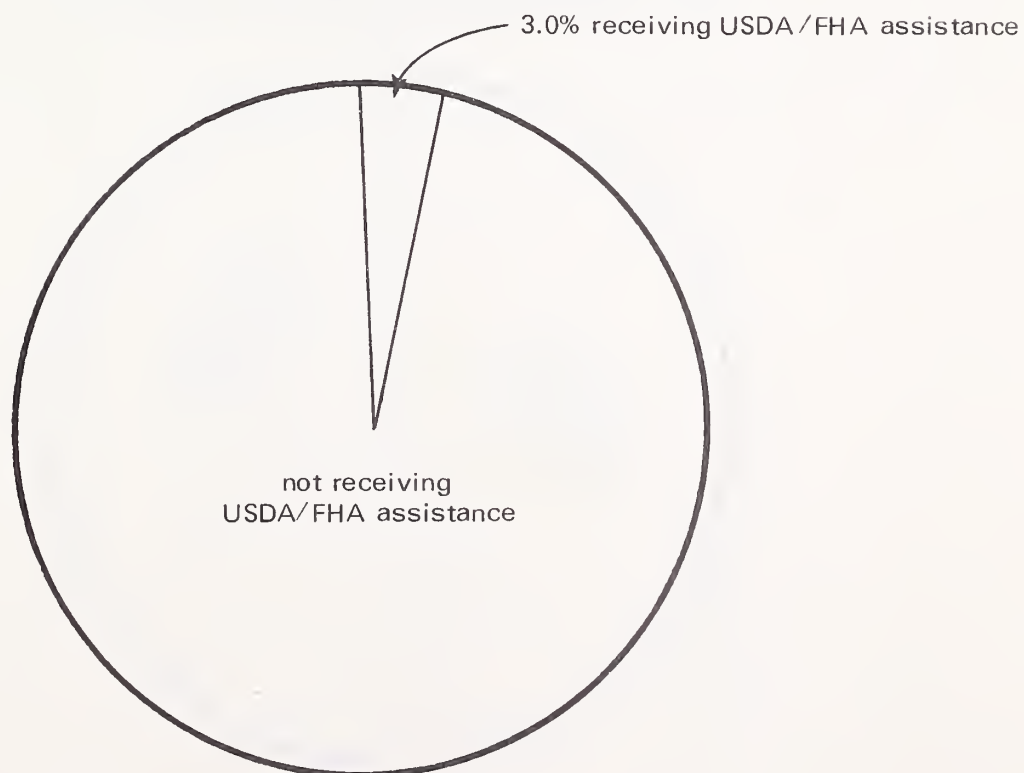


FIGURE 16.
Percentage of Program Families Participating in Individual
Sessions Only, Group Sessions Only, Both Individual and Group
Sessions, and No Sessions (During March 1978)

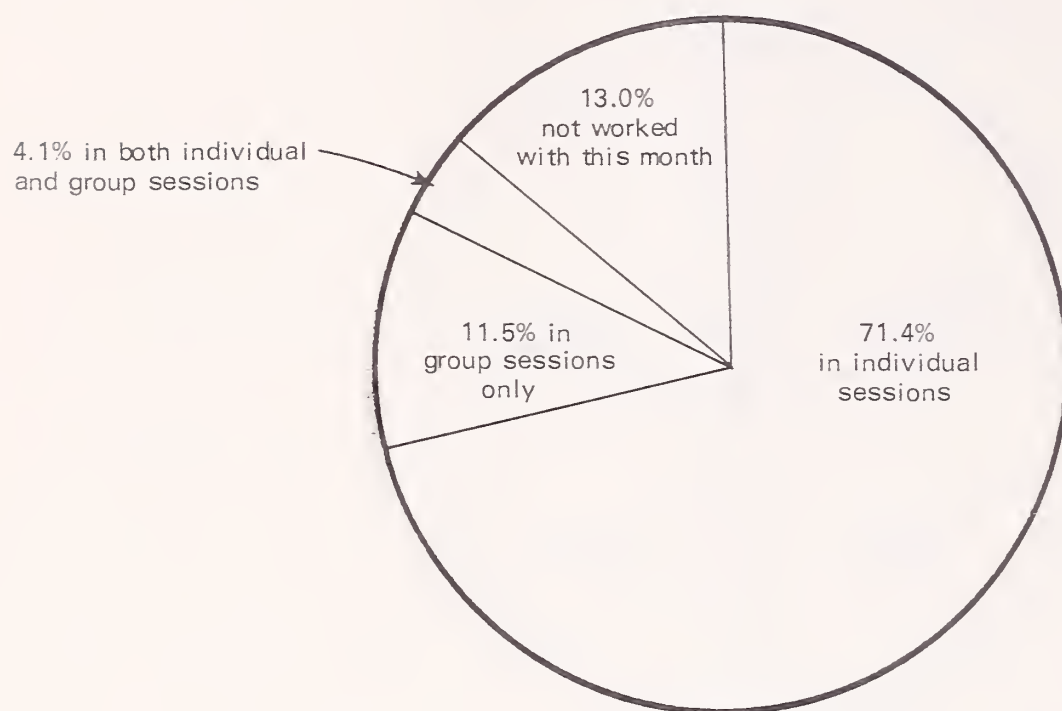


FIGURE 17.
Percentage of Program Families Residing
in Urban Areas (March 1978)

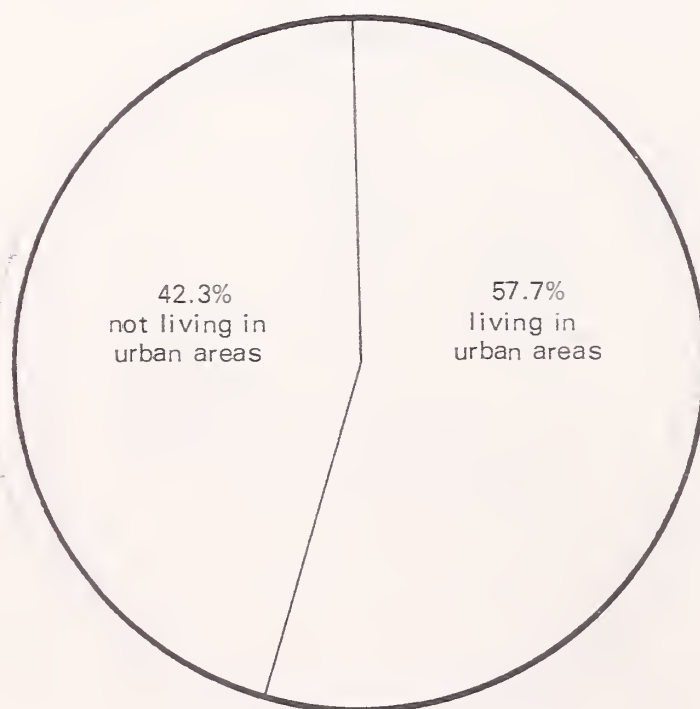


FIGURE 18.
Percentage of Program Family Members
Under 19 Years of Age (March 1978)

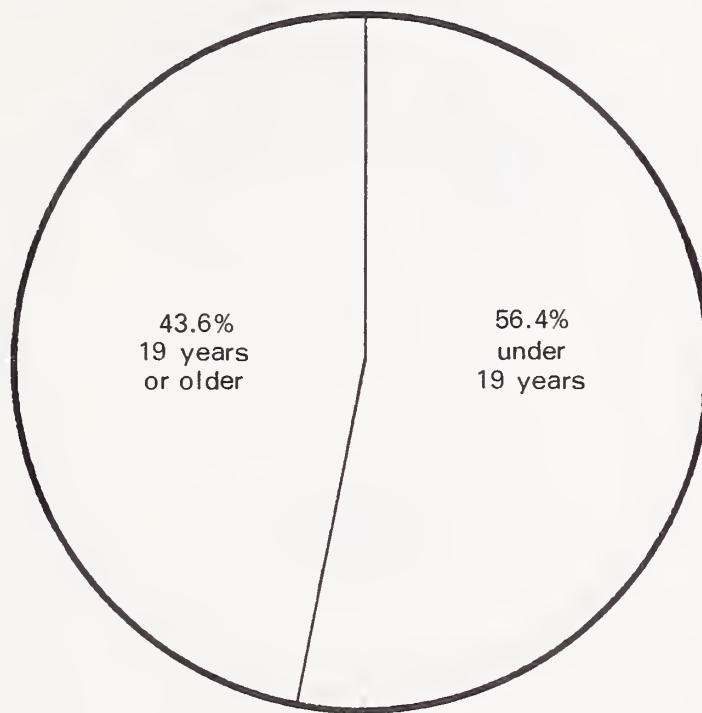


FIGURE 19.
Percentage of Program Family Members Under 19 Years
of Age Who Are Attending School (March 1978)

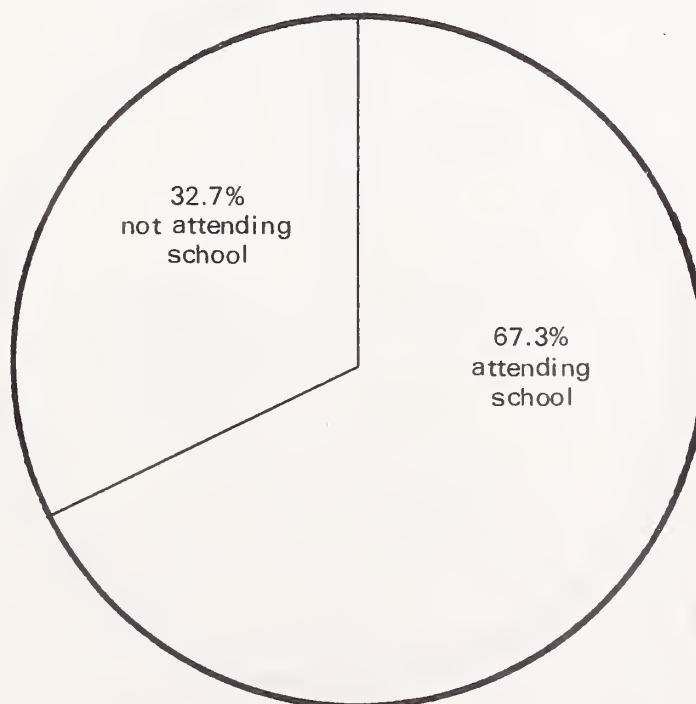


FIGURE 20.
Percentage of Program Family School Children
Who Participate in School Lunch Programs (March 1978)

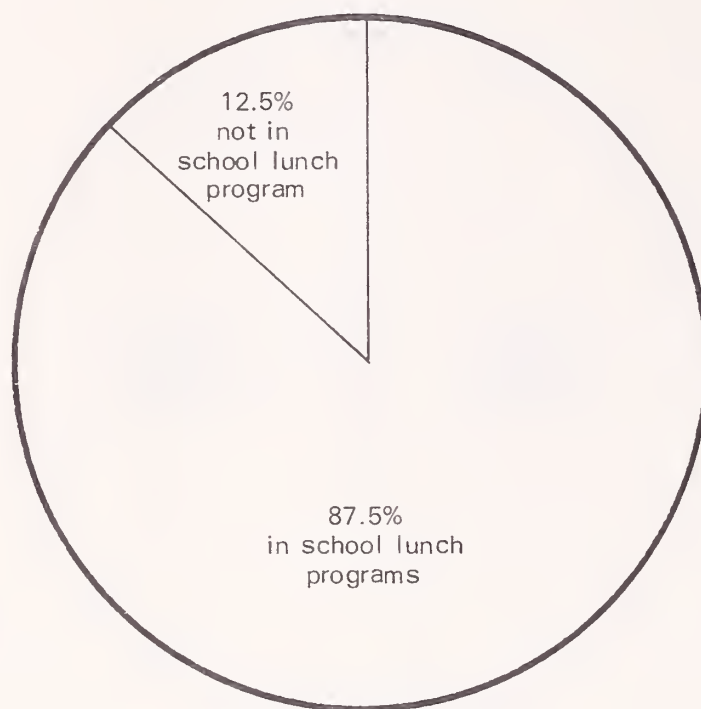


FIGURE 21.
Percentage of Program Family Homemakers in Various
Racial/Ethnic Categories (September 1977)

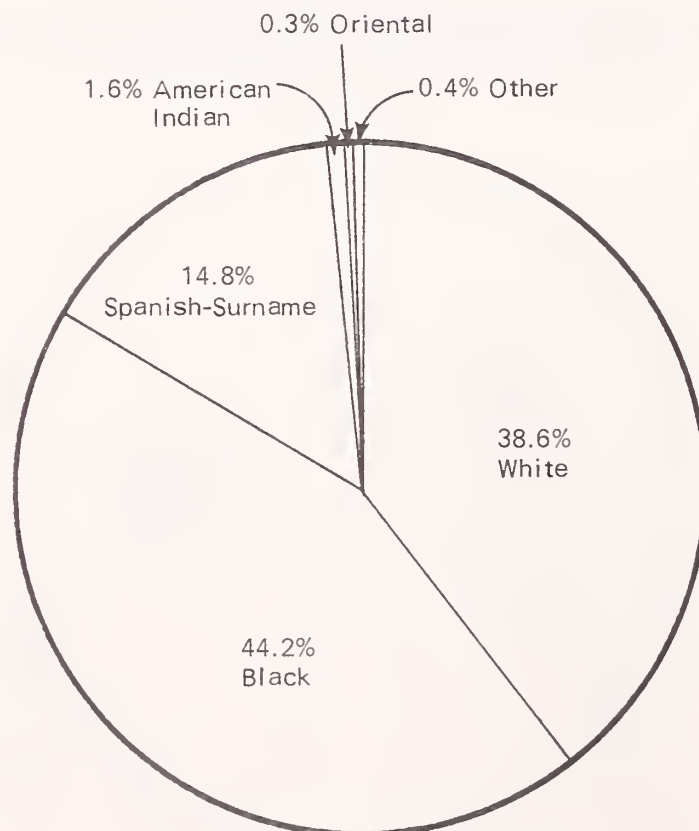


FIGURE 22.
Percentage of Program Homemakers in Various
Age Categories (March 1978)

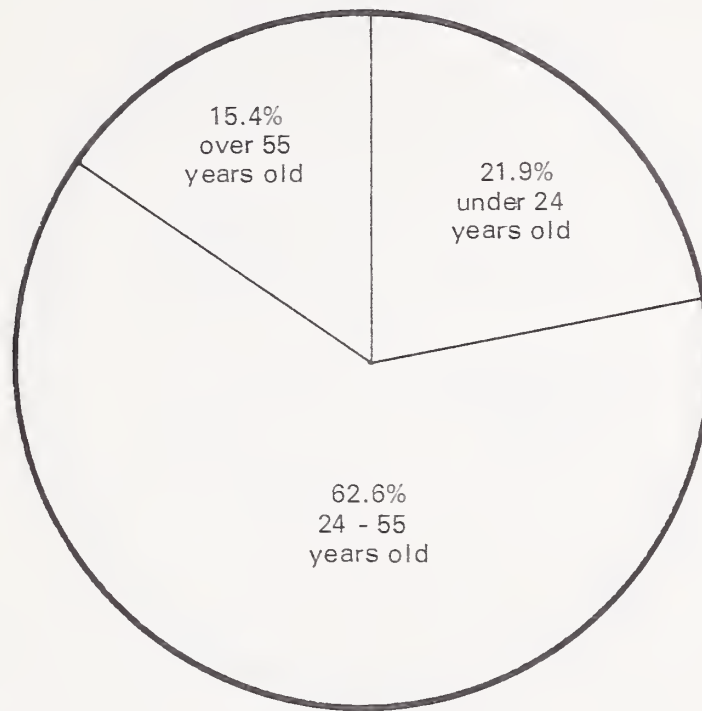


FIGURE 23.
Percentage of Program Family Homemakers with Less
than an Eighth Grade Education (March 1978)

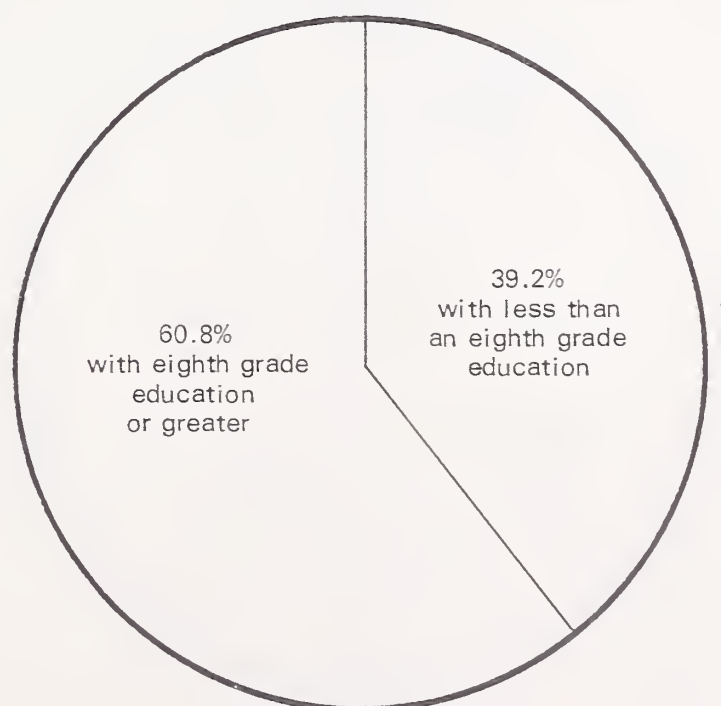


FIGURE 24.
Percentage of 4-H EFNEP Youth from Program Families
and Non-Program Families (September 1977)

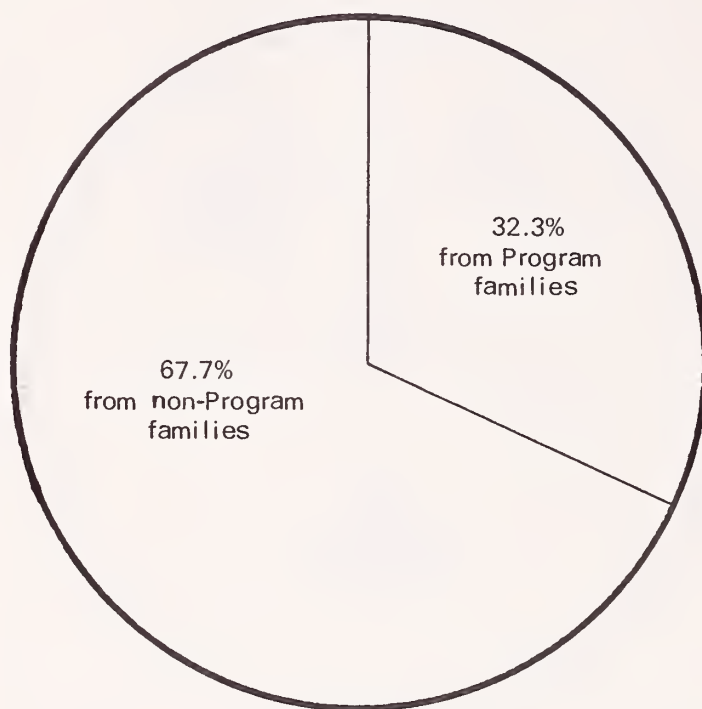


FIGURE 25.
Percentage of 4-H EFNEP Youth in Various
Ethnic Categories (September 1977)

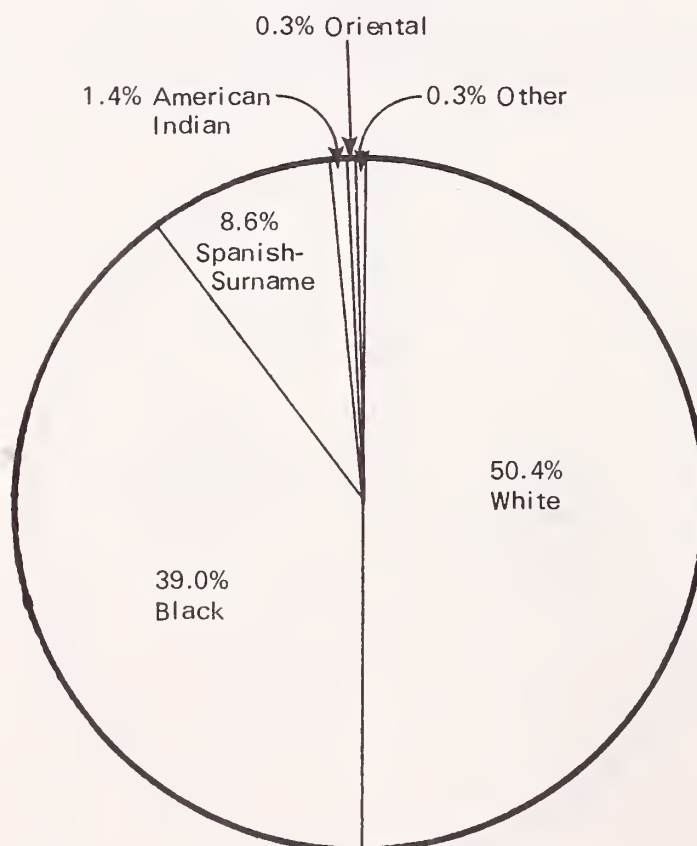


FIGURE 26.
Percentage of Female 4-H EFNEP Youth in Various
Age Categories (September 1977)

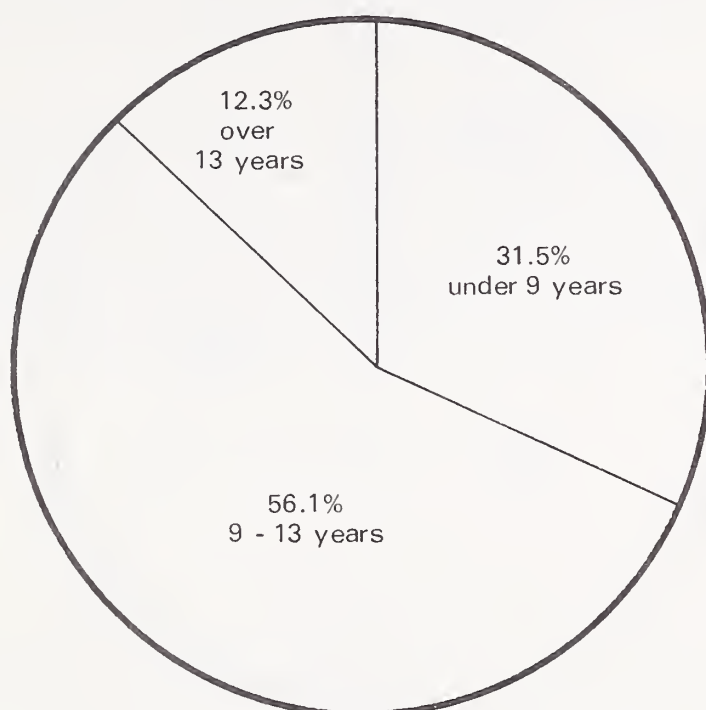


FIGURE 27.
Percentage of Male 4-H EFNEP Youth in Various
Age Categories (September 1977)

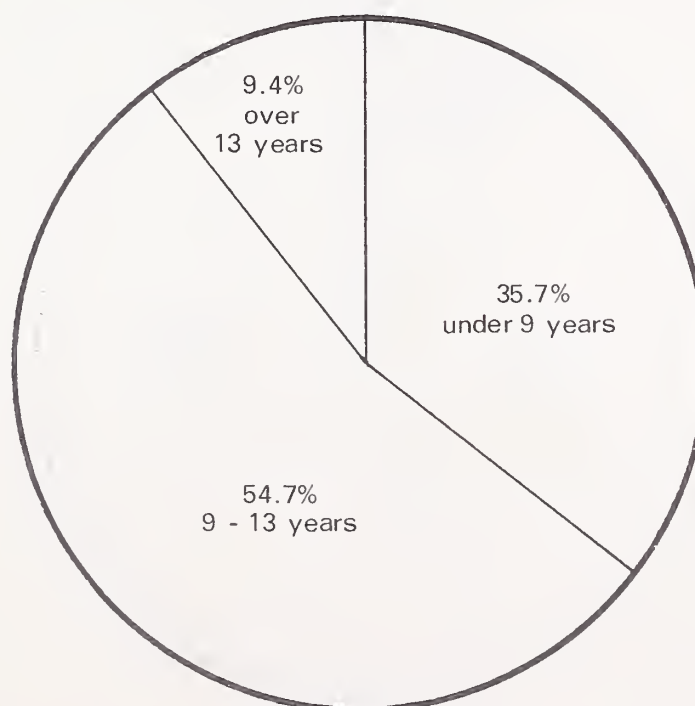


FIGURE 28.
Percentage of EFNEP Aides in Various
Racial/Ethnic Categories (September 1977)

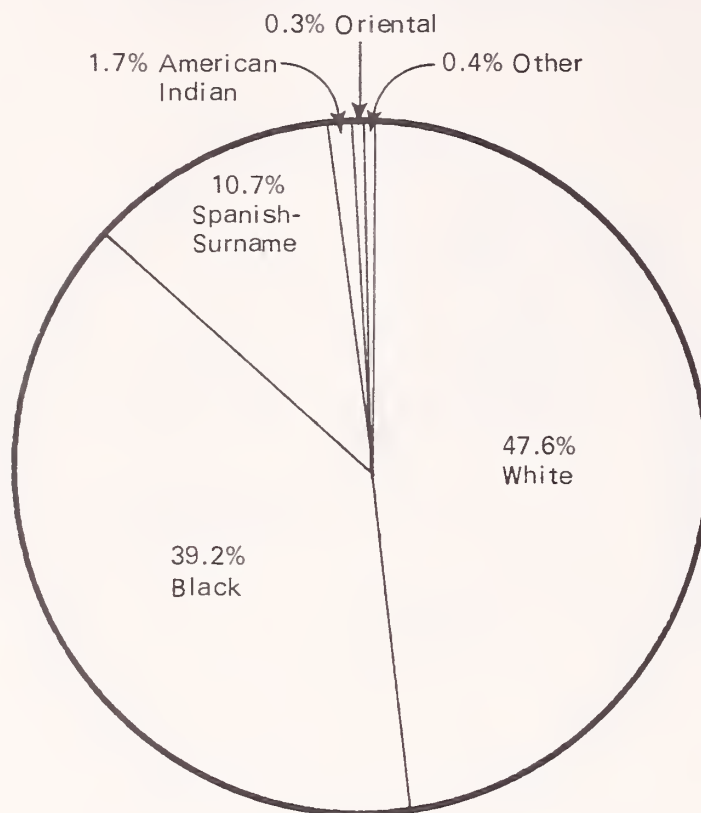
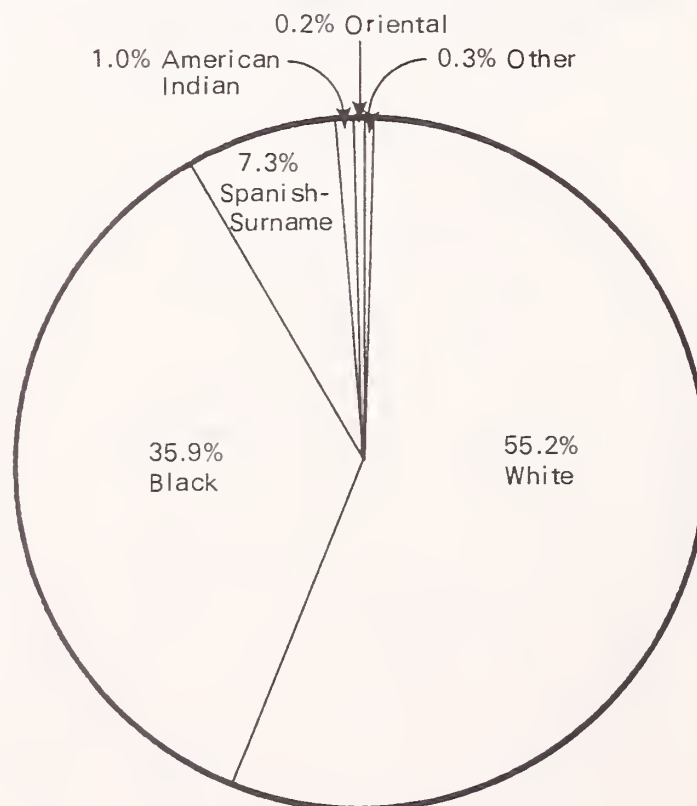


FIGURE 29.
Percentage of EFNEP Volunteers in Various
Racial/Ethnic Categories (September 1977)



Program Trends: *An Historical Perspective of Program Operations*

Figures 30 through 85 illustrate trends in important Program variables over the history of EFNEP. The study of trends can provide valuable insight into improvements or degradations in Program operations. Discussions of each chart are provided.

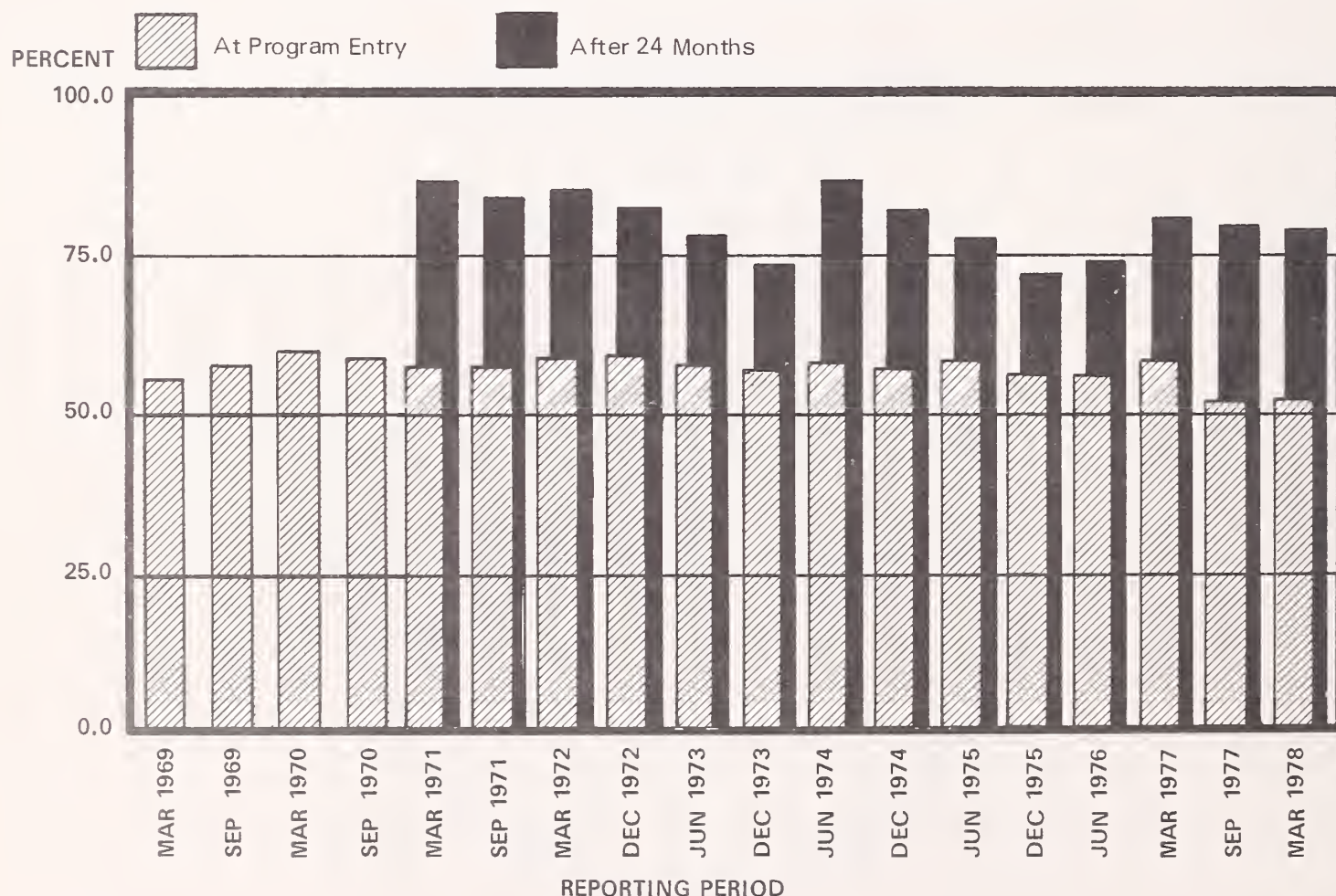
The characteristics of EFNEP, and of the national EFNEP Reporting System which supplies the data for these charts, have changed over time. For this reason, the charts do not always cover the same time period. Collection of data on cumulative youth participation was not, for instance, initiated until December 1972. Trend charts have been constructed to provide the earliest and most complete data available about the Program.

Percentage of Homemakers with at Least One Serving from Each Food Group at Program Entry and After 24 Months of Program Participation.

These data bear on two important aspects of EFNEP operations: (1) locating and enrolling participants who are nutritionally in need and (2) influencing the food behaviors of participants. The food recall data are analyzed for consumption of at least one serving from each of the Four Food Groups. Across the life of the Program, only about 50 percent of the entering homemakers consume at least one serving from each food group. This percentage has been dropping slowly (and irregularly) at a rate of about 0.4 percentage points per year. This trend indicates that EFNEP is maintaining its capability for locating Program participants who are nutritionally in need, achieving a modest improvement in this capacity in recent reporting periods.

The percentages at the 24-month point are variable, and no significant trend exists. For the 14 reporting periods for which data are available, an average of 77 percent of the homemakers consume a minimum diet (at least one serving in each food group) after 24 months of Program participation, demonstrating good and constant improvement of homemakers' minimal diet consumption.

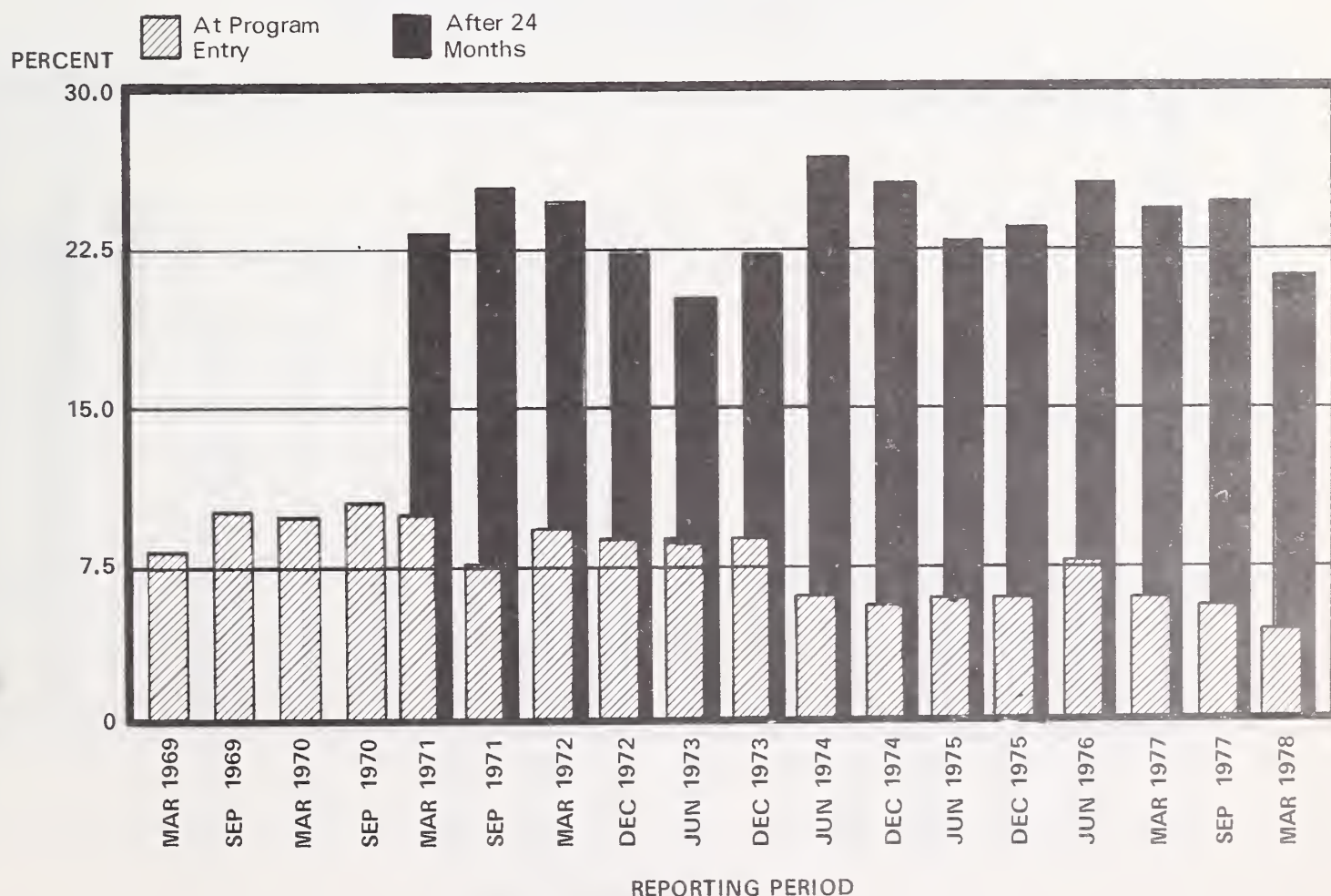
FIGURE 30.
Percentage of Program Homemakers with at Least One Serving
from Each Food Group at Program Entry (Food Recall #1)
and After 24 Months of Program Participation (Food Recall #5)



Percentage of Homemakers with Adequate Servings in All Food Groups at Program Entry and After 24 Months of Program Participation. These figures also indicate EFNEP success in locating homemakers who are in nutritional need and in altering homemaker food consumption habits. The percentage of homemakers with adequate diets (two servings in each of the milk and meat groups and four servings in each of the vegetable and fruit and bread and cereal groups) at Program entry has averaged 7.4 percent, and has been dropping at a rate of just under 0.5 percentage points per year. The trend is a moderately strong one, indicating that EFNEP is finding and enrolling homemakers who are increasingly in need of better nutrition.

After 24 months of participation in EFNEP, the percentage of homemakers with completely adequate diets has averaged about 23 percent; there is no strong trend in these data. Examined in the light of the declining Program entry percentages, however, they indicate increased effectiveness in positively affecting homemaker diets.

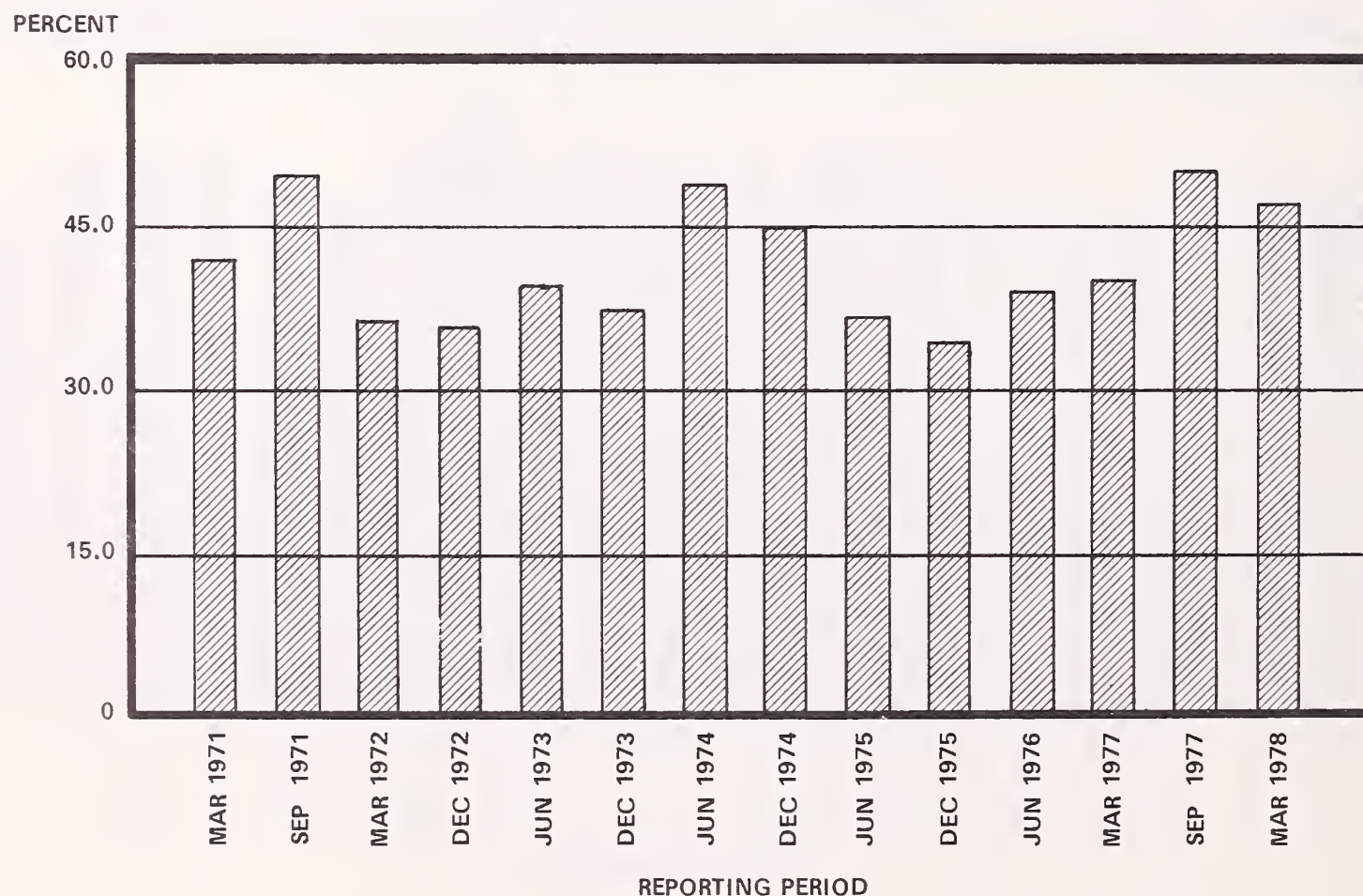
FIGURE 31.
Percentage of Program Homemakers with Adequate Servings
in All Food Groups at Program Entry (Food Recall #1)
and After 24 Months of Program Participation
(Food Recall #5)



Percent Difference Between Entry Scores and Scores After 24 Months of Program Participation; Percentage of Homemakers with Minimum Diets.

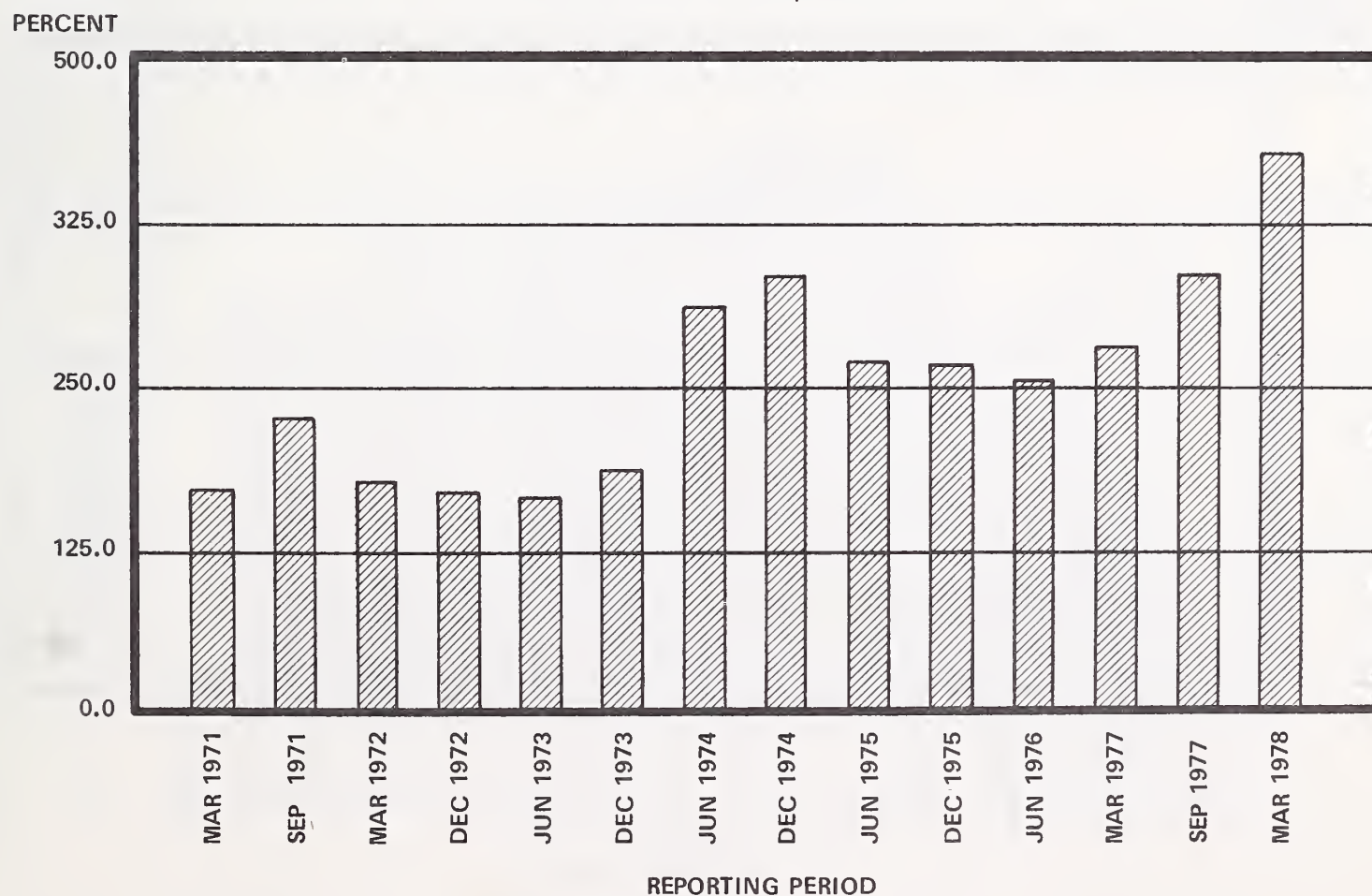
This measure addresses the extent to which EFNEP improves, sustains, or worsens its performance in improving the diets of its participants. These data indicate that the Program has maintained its level of performance in this measure; the average difference has been about 42 percent in the 14 reporting periods for which information is available. There has been no appreciable trend in the figures.

FIGURE 32.
Percentage Difference Between Entry Level Scores and
Scores After 24 Months of Program Participation;
Percentage of Homemakers with Minimum Diets



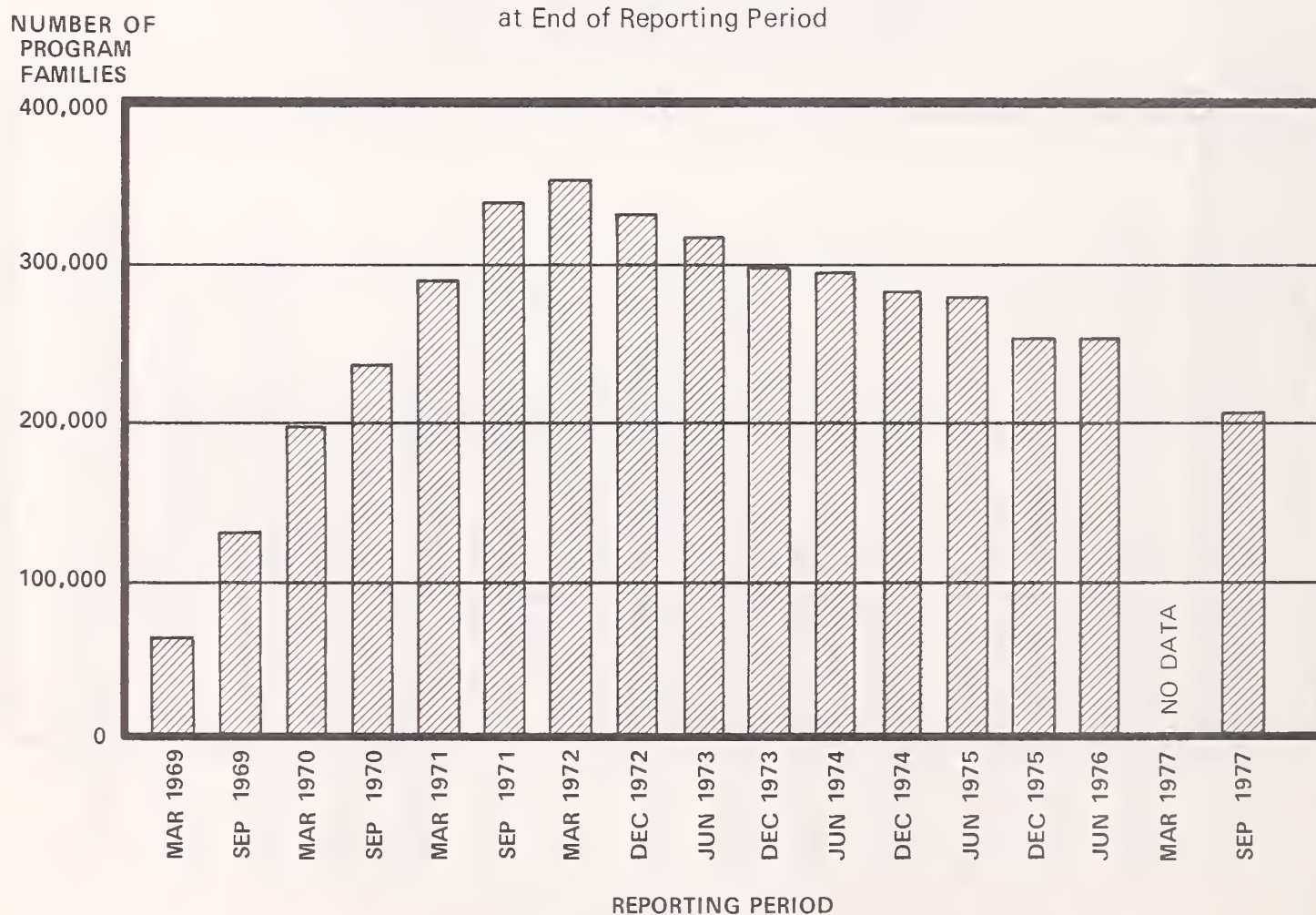
Percentage Difference Between Entry Scores and Scores After 24 Months of Program Participation; Percentage of Homemakers with Adequate Diets. Again, the measure addresses the extent to which EFNEP improves, sustains, or worsens its performance in improving the diets of its homemakers. The figures here show that the percent difference between scores at Program entry and after 24 months of Program participation has been increasing. This indicates that EFNEP is doing a better job of positively affecting the diets of its participating homemakers. The average percentage difference for the 14 reporting periods for which data are available has been about 250 percent. There has been a relatively strong upward trend in the figures averaging about 27 percentage points per year.

FIGURE 33.
Percentage Difference Between Entry Scores After
24 Months of Program Participation; Percentage
of Homemakers with Adequate Diets



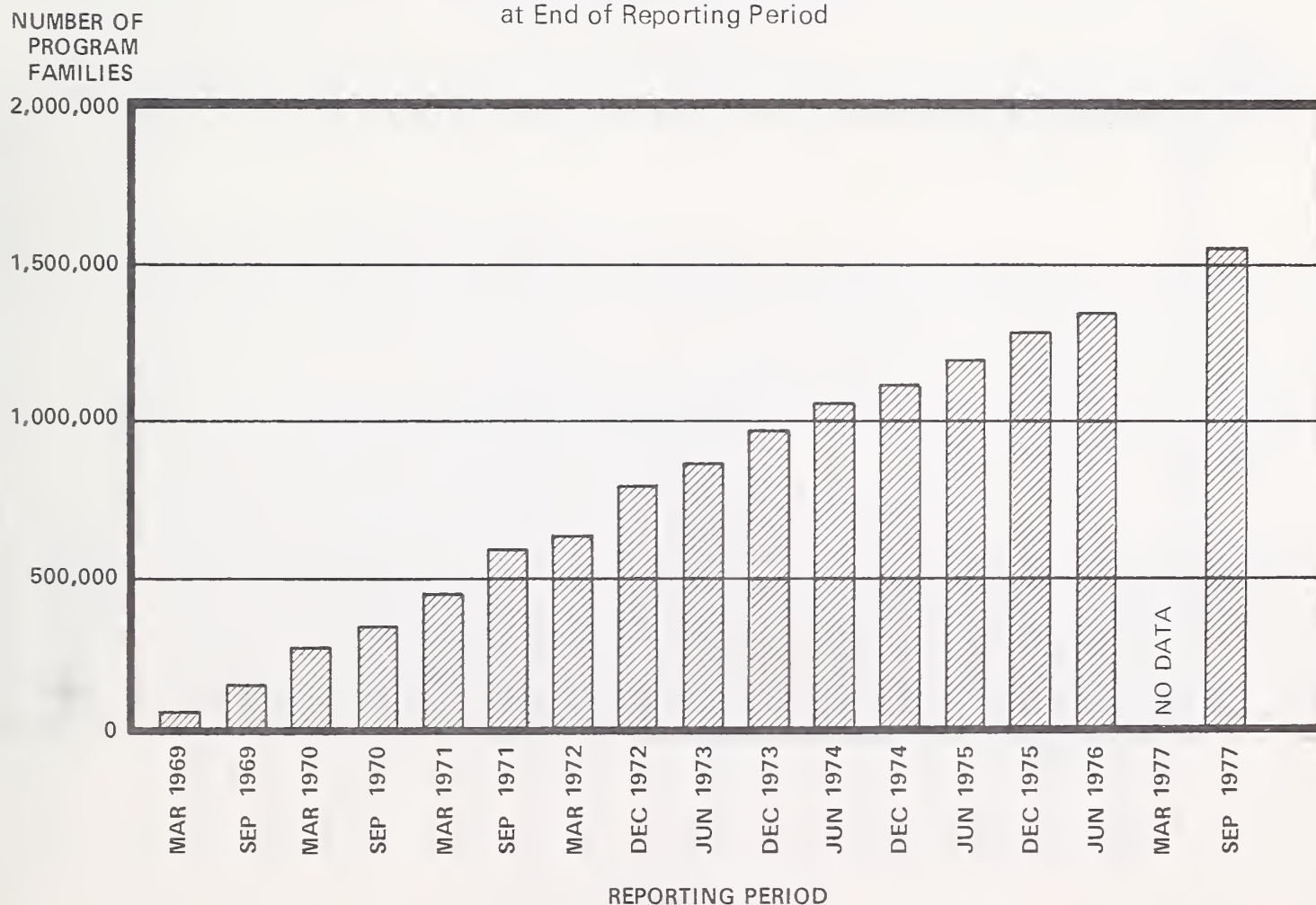
Number of Active Program Families. The number of active Program families at the end of the reporting period peaked in March 1972, at about 360,000 families. Since that time the number of families has dropped fairly steadily to just over 210,000 in September 1977. Figures for the early reporting periods (March 1969 through March 1972) are typical of a young and growing program, with participation levels increasing as hiring and training of staff is completed. The drop in participation levels since March 1972 results from the relatively constant level of funding for EFNEP since 1971. In an inflationary period, the number of Program families which can be supported by EFNEP per dollar available naturally declines. Thus, the drop in the number of Program families is not surprising. The decline is expected to continue until or unless: increased funds become available; there is a significant change in EFNEP activity patterns (e.g., shorter period of participation for Program families, increased emphasis on group meetings); or the inflation rate drops drastically.

FIGURE 34.
Number of Active Program Families
at End of Reporting Period



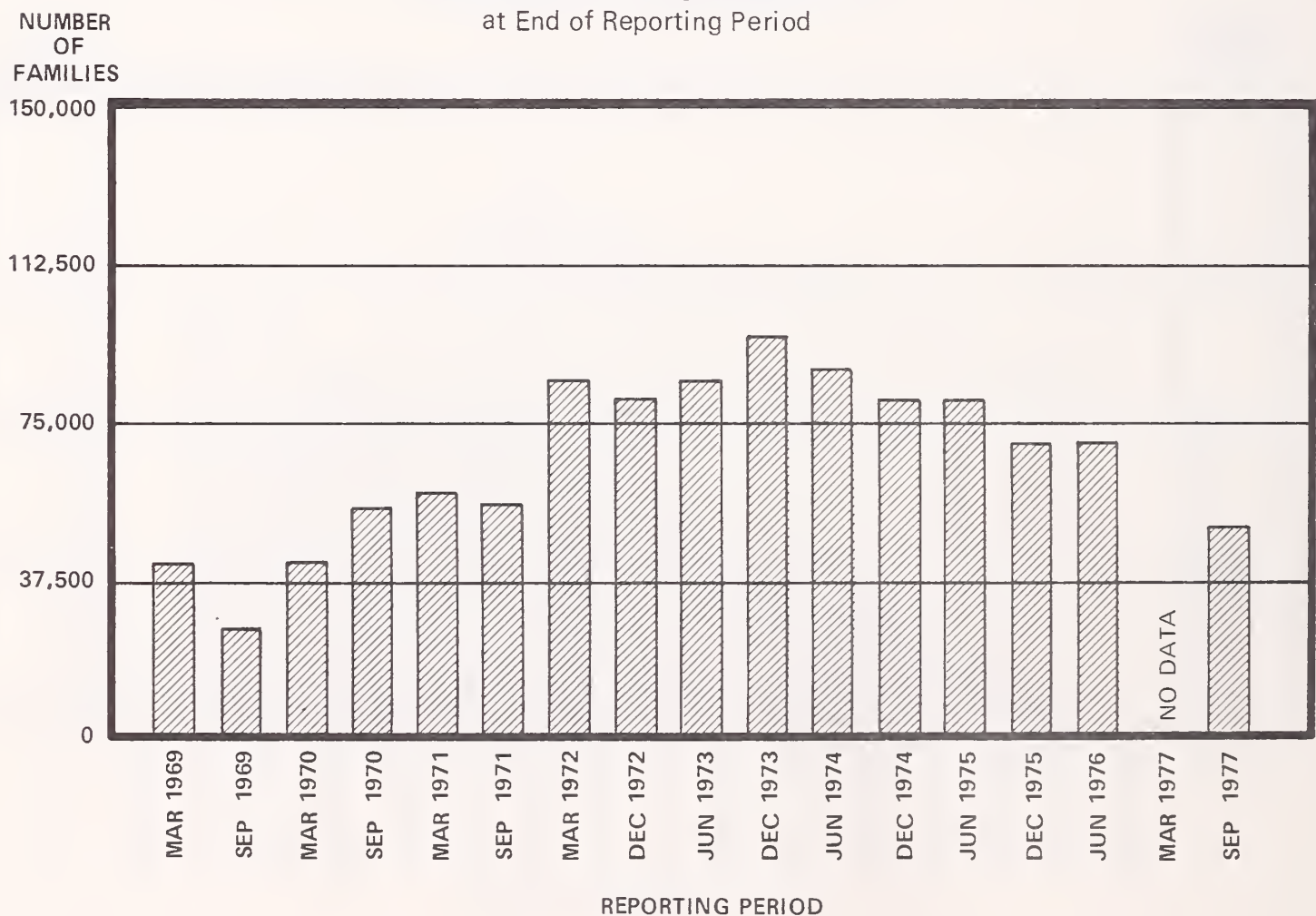
Cumulative Number of Program Families. This chart illustrates the number of Program families who have ever been enrolled in EFNEP at the end of each reporting period. Naturally, the number of families increases steadily. By September 1977, almost 1.6 million families had been or were currently enrolled in EFNEP. The rate of increase over the 17 reporting periods has been relatively stable at about 175,000 families per year.

FIGURE 35.
Cumulative Number of Program Families
at End of Reporting Period



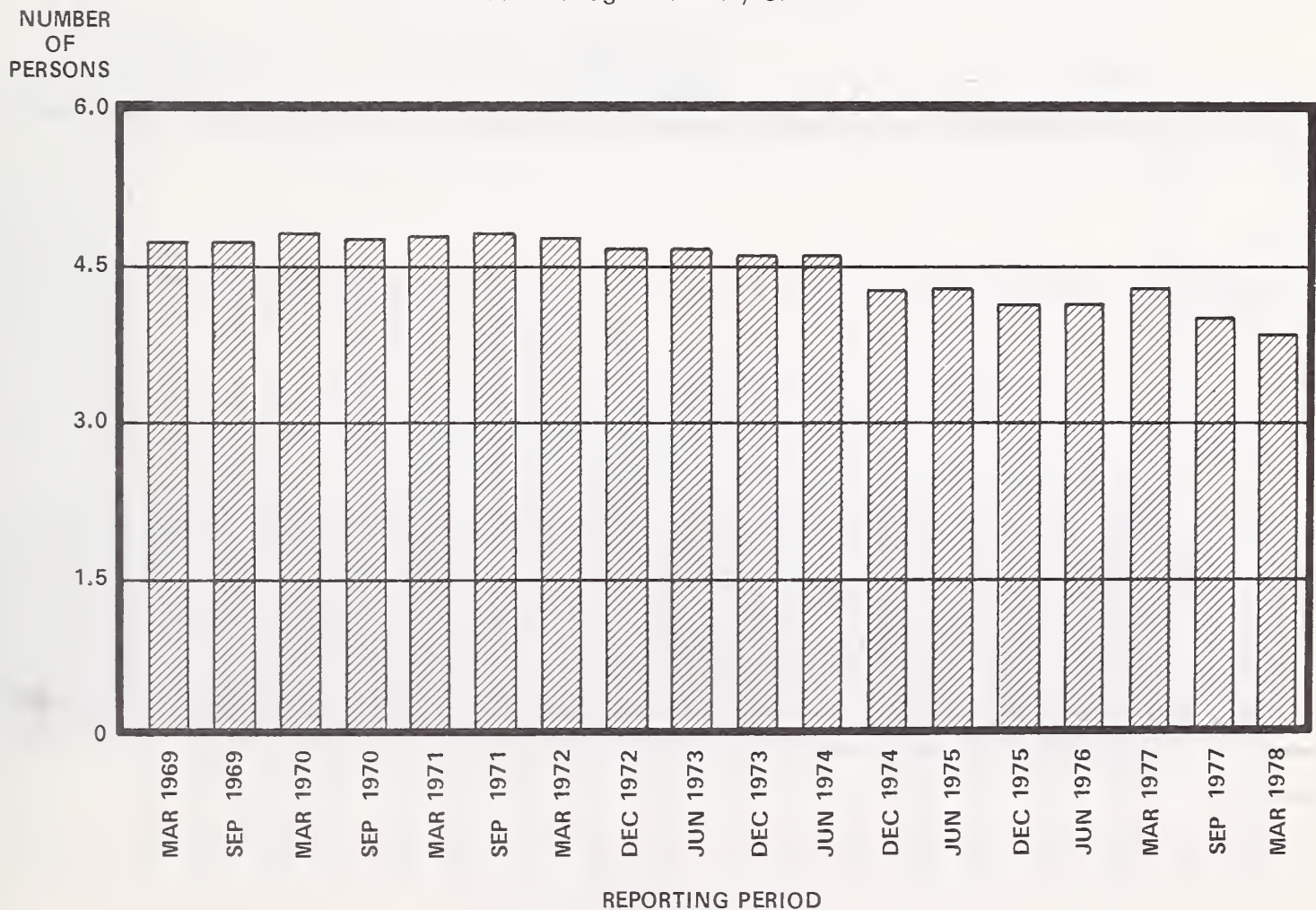
Number of Non-Program Families. Non-Program families are those which have been contacted by EFNEP with the intent to enroll the families in the Program. The number of non-Program families roughly parallels the number of Program families. The peak occurred in March 1972 at about 140,000 families. Since then, the number of non-Program families has dropped at a rate somewhat faster than that for Program families. Since October 1976 specific efforts have been made by States to assure that contacts with non-Program families are made with the intent to enroll those families. The drop to about 50,000 families in September 1977 may be substantially due to these efforts.

FIGURE 36.
Number of Non-Program Families
at End of Reporting Period



Program Family Size. In line with the concentration on families with young children and the need to benefit as many people as possible, EFNEP should focus its efforts on large families. The average size of EFNEP families has, however, been dropping fairly steadily since March 1970. The overall trend since March 1969 has been downward at a rate of about 0.1 persons per Program family per year. The reasons for the decline may be numerous, but the major one is probably the overall decline in mean family size for the United States as a whole. Two emphases of EFNEP have probably also contributed to the decline: (1) a focus on younger homemakers who have not yet had an opportunity to build families to their ultimate size and (2) increasing participation of one-parent households.

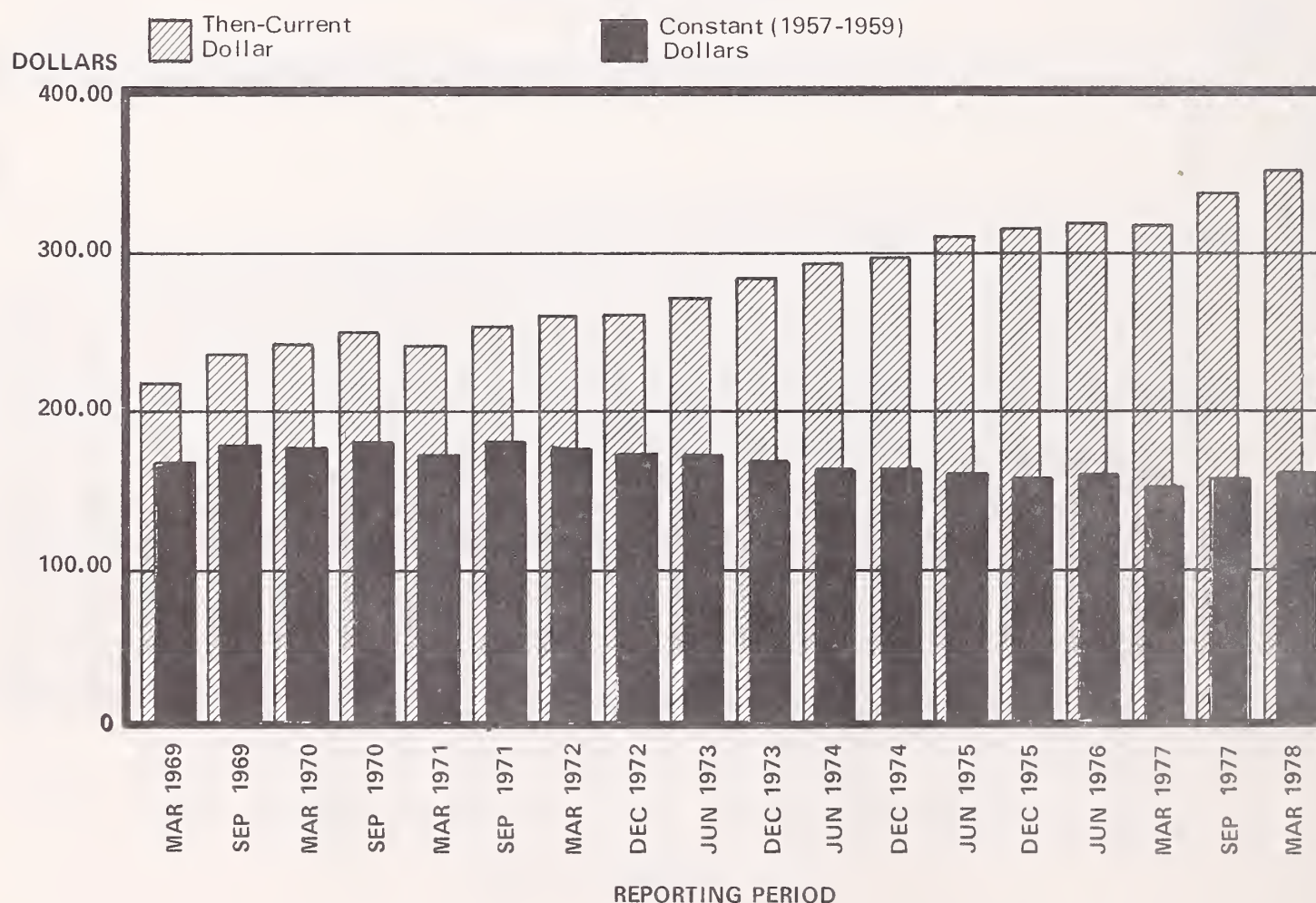
FIGURE 37.
Mean Program Family Size



Family Income. Since the purpose of EFNEP is to provide education to low-income families, one of the most important indicators of Program targeting is the average income of families enrolled in EFNEP. The figure below indicates that the average monthly income of families entering EFNEP has been increasing steadily since the beginning of the Program. This trend has been increasing steadily since the beginning of the Program. The trend has been quite strong, and has averaged about \$13.40 per year since March 1969. In that interval, average monthly family income has increased from \$217 per month to \$352 per month. In times of inflation, however, then-current dollars do not provide a suitable index of the real purchasing power of a given income.

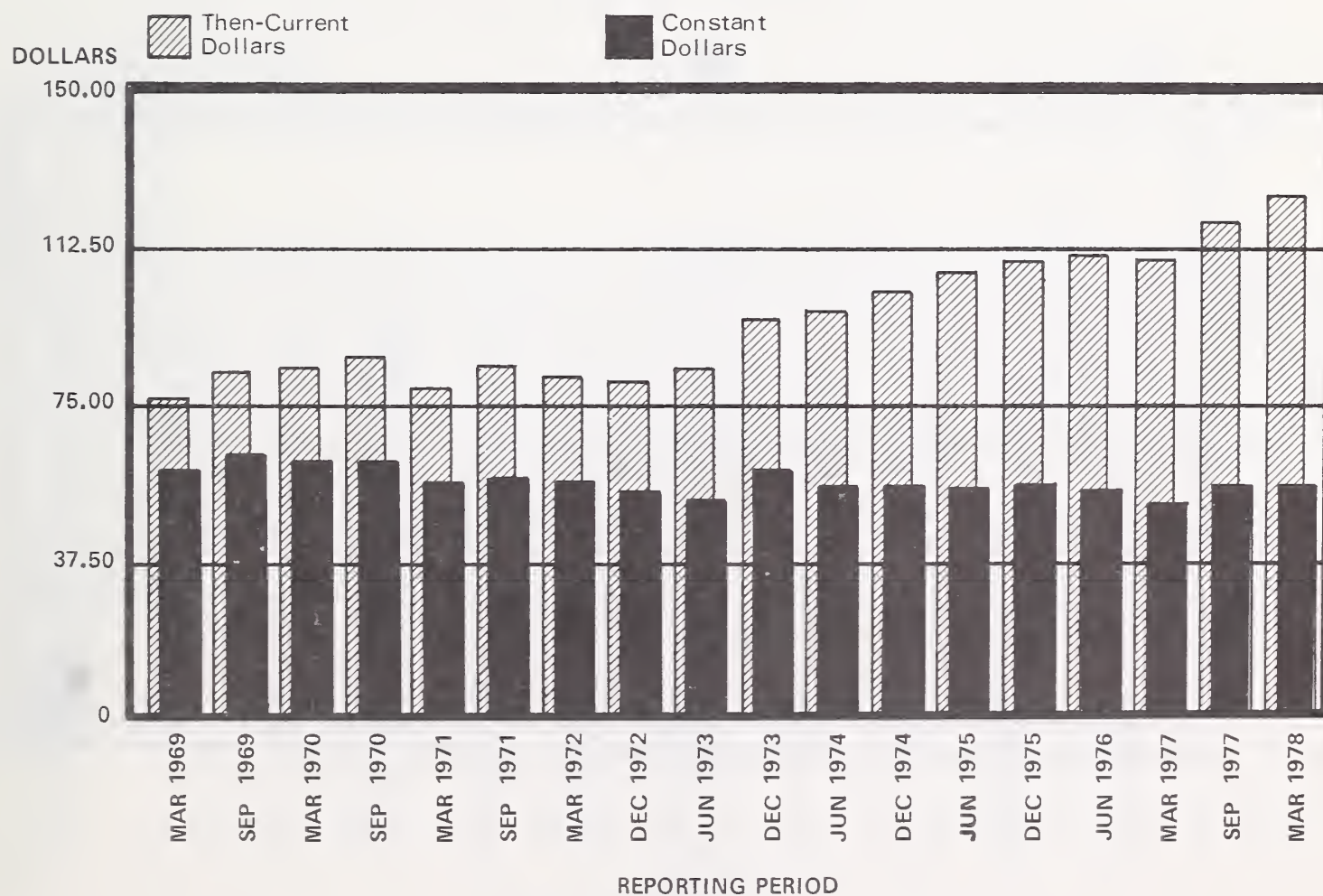
The figure below also shows average family income in constant (1957-1959) dollars. Measured in this manner, average family income has actually been dropping slowly. The rate of decline in constant dollars has been about \$3.00 per year, and the downward trend is quite strong. These data indicate that EFNEP continues to find poorer and poorer families, thus focusing on people likely to be in increasingly urgent need of nutrition education. (It should be noted that these income data do not include non-dollar income such as food stamps and food distribution.)

FIGURE 38.
Monthly Family Income at Program Entry in
Then-Current and Constant (1957-1959) Dollars



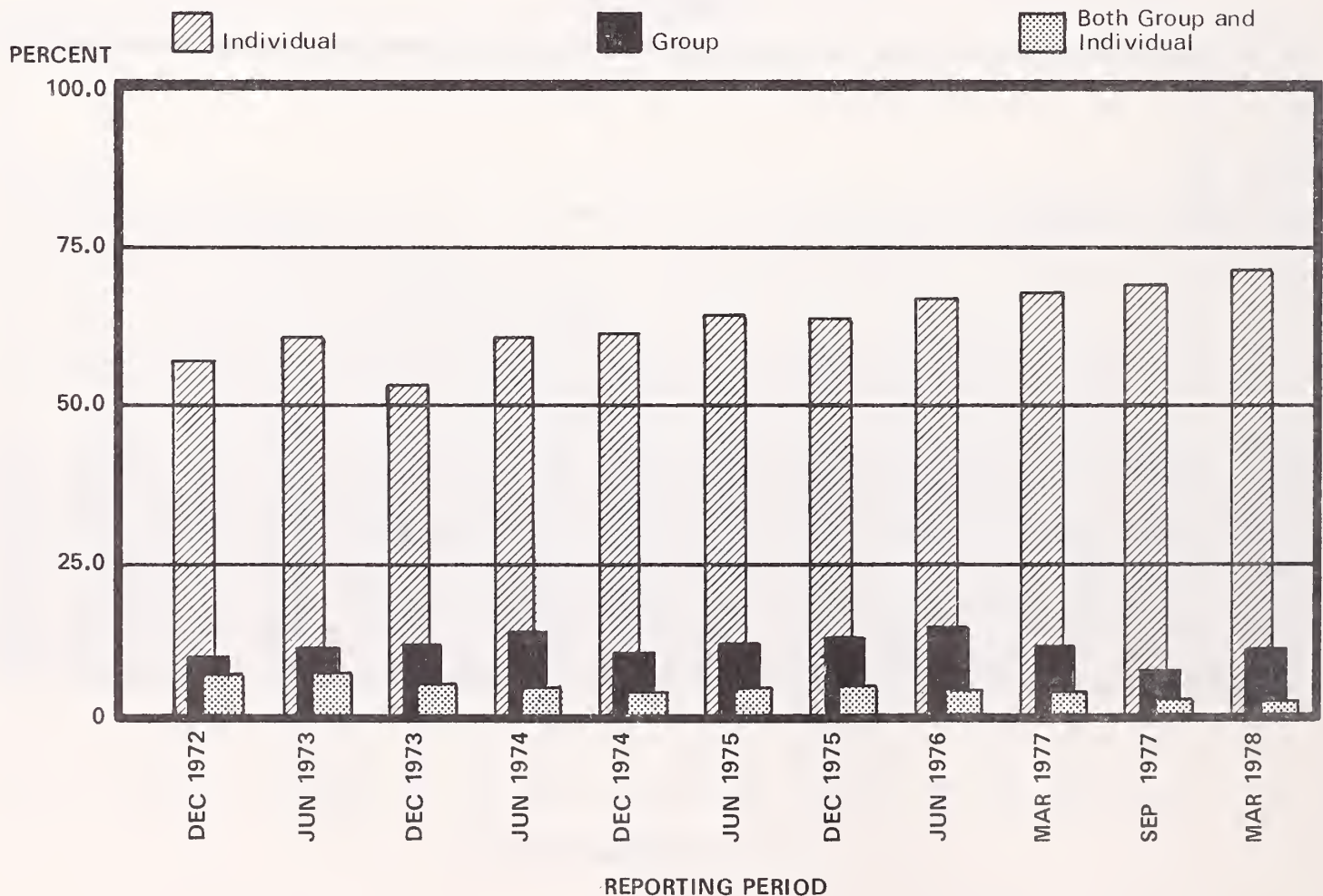
Family Food Expenditures. As with family income, family food expenditures, measured in then-current dollars, have increased relatively steadily throughout the life of the Program. The rate of increase over the 18 reporting periods has been about \$5.00 per year, and the upward trend has been strong. As with income, this increase is wholly due to the inflation which has occurred throughout the history of EFNEP. Measured in constant dollars, the average family food expenditures have actually been dropping slowly at a rate of about \$0.79 per year. The downward trend has been moderately strong.

FIGURE 39.
Family Food Expenditures at Program Entry
in Then-Current and Constant Dollars



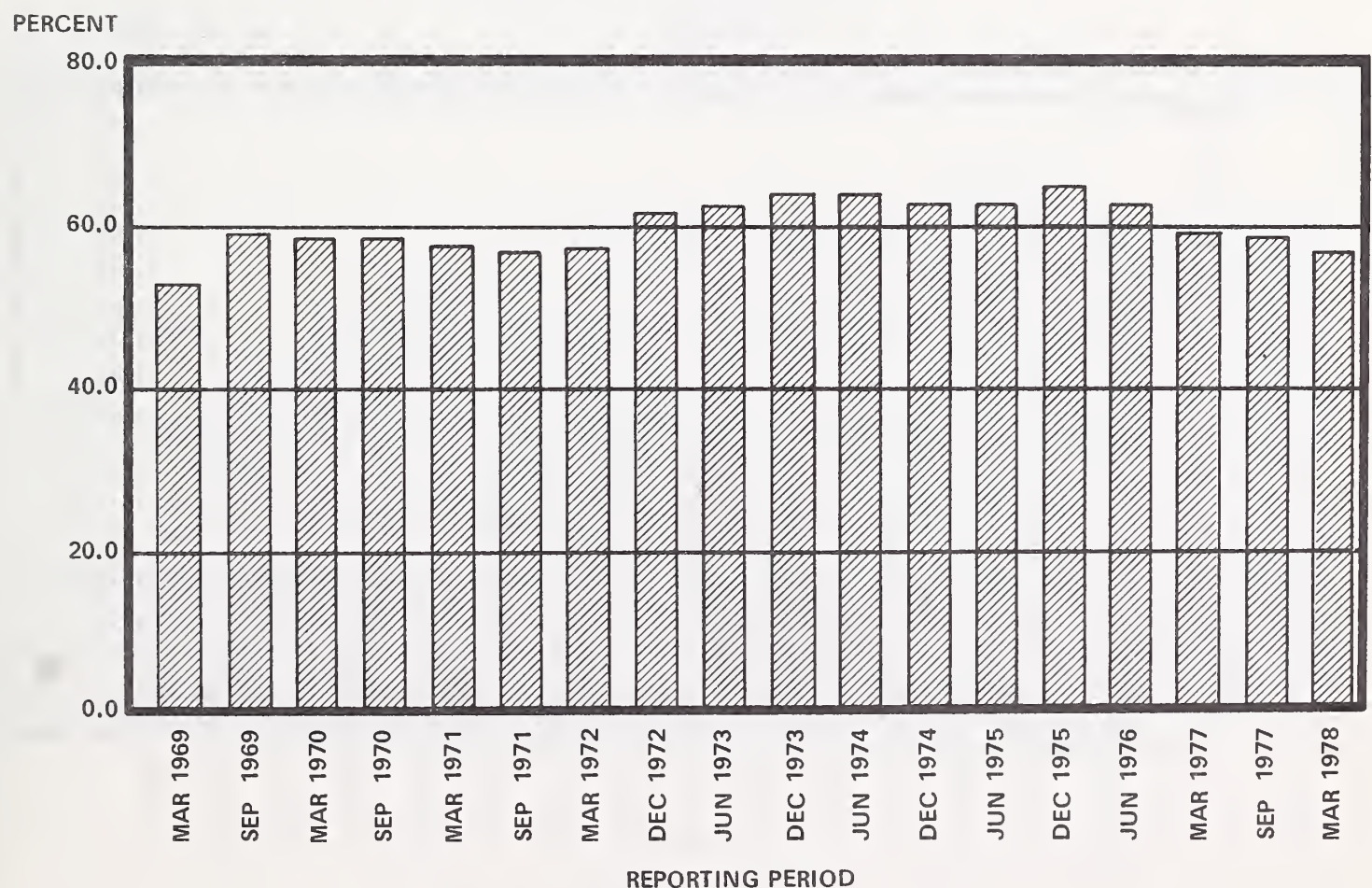
Family Participation Style. Program families participate in EFNEP in three ways: individually, in group sessions, or both individually and in groups. The percentage of families involved in individual sessions only has risen fairly steadily in the 10 periods reported since December 1972, with the rate of increase being about 2.7 percentage points per year. Over the same period, the percentage of homemakers working in both individual and group sessions has been dropping at a rate of about 1 percentage point per year. Both trends are quite strong. The percentage of homemakers in group sessions alone has been variable, but has evidenced no significant trend. These data indicate that individual sessions are increasingly the most prevalent. The percentage of families worked with in group sessions has been fairly stable at 16-17 percent throughout the history of EFNEP.

FIGURE 40.
Percentage of Program Families Participating
in Individual, Group, and Both Individual
and Group Sessions



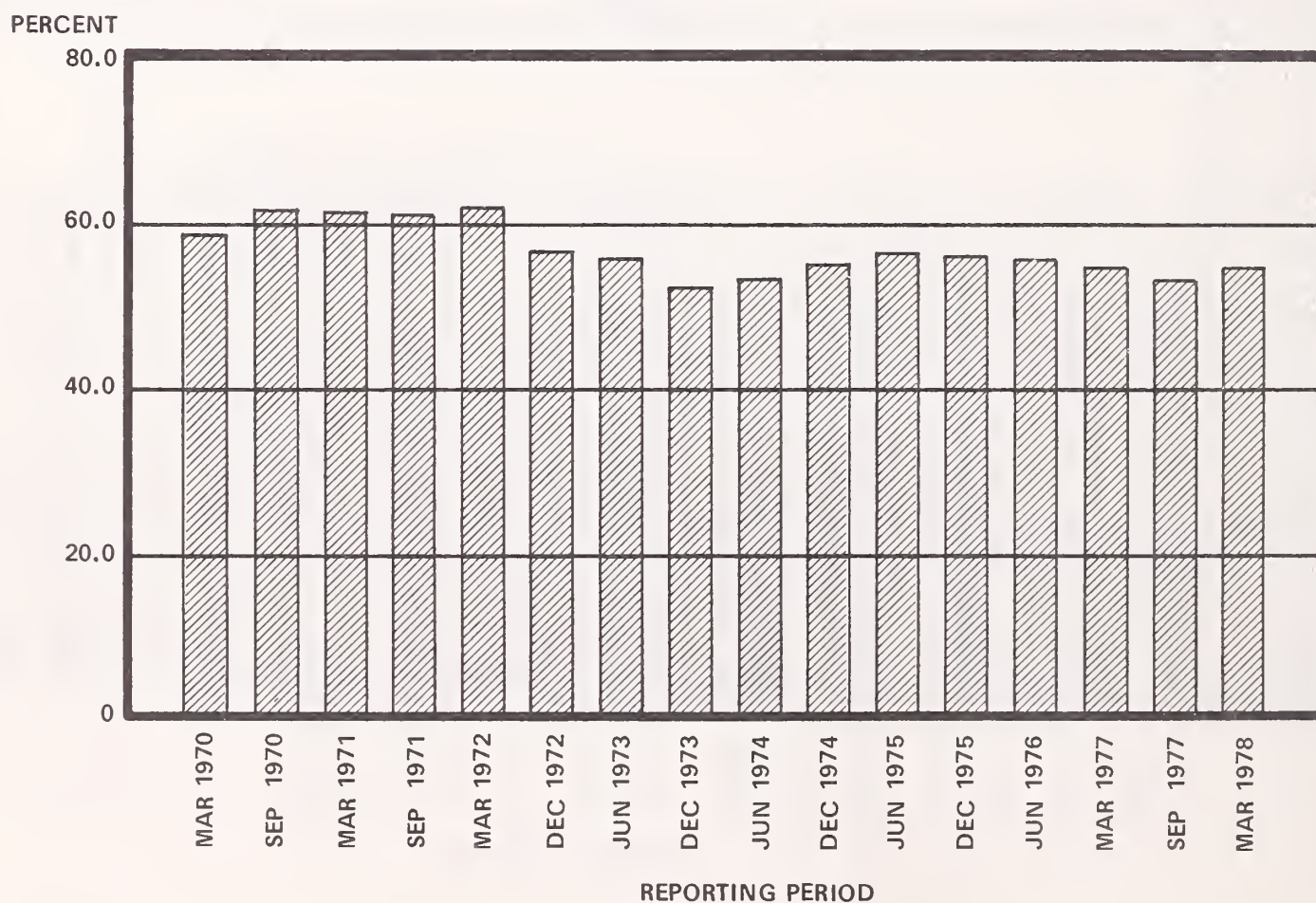
Family Residence. The percentage of Program families residing in urban areas rose relatively steadily through December 1975 to a high of 65 percent. Since then, the percentage has dropped to just under 58 percent in March 1978. The average percentage of urban residence for the 18 reporting periods is about 61 percent. Overall, there has been a weak upward trend average about 0.5 percentage points per year. The reason for the drop in the last four reporting periods is not clear, since the emphasis in EFNEP has been on working with urban families.

FIGURE 41.
Percentage of Program Families
Residing in Urban Areas



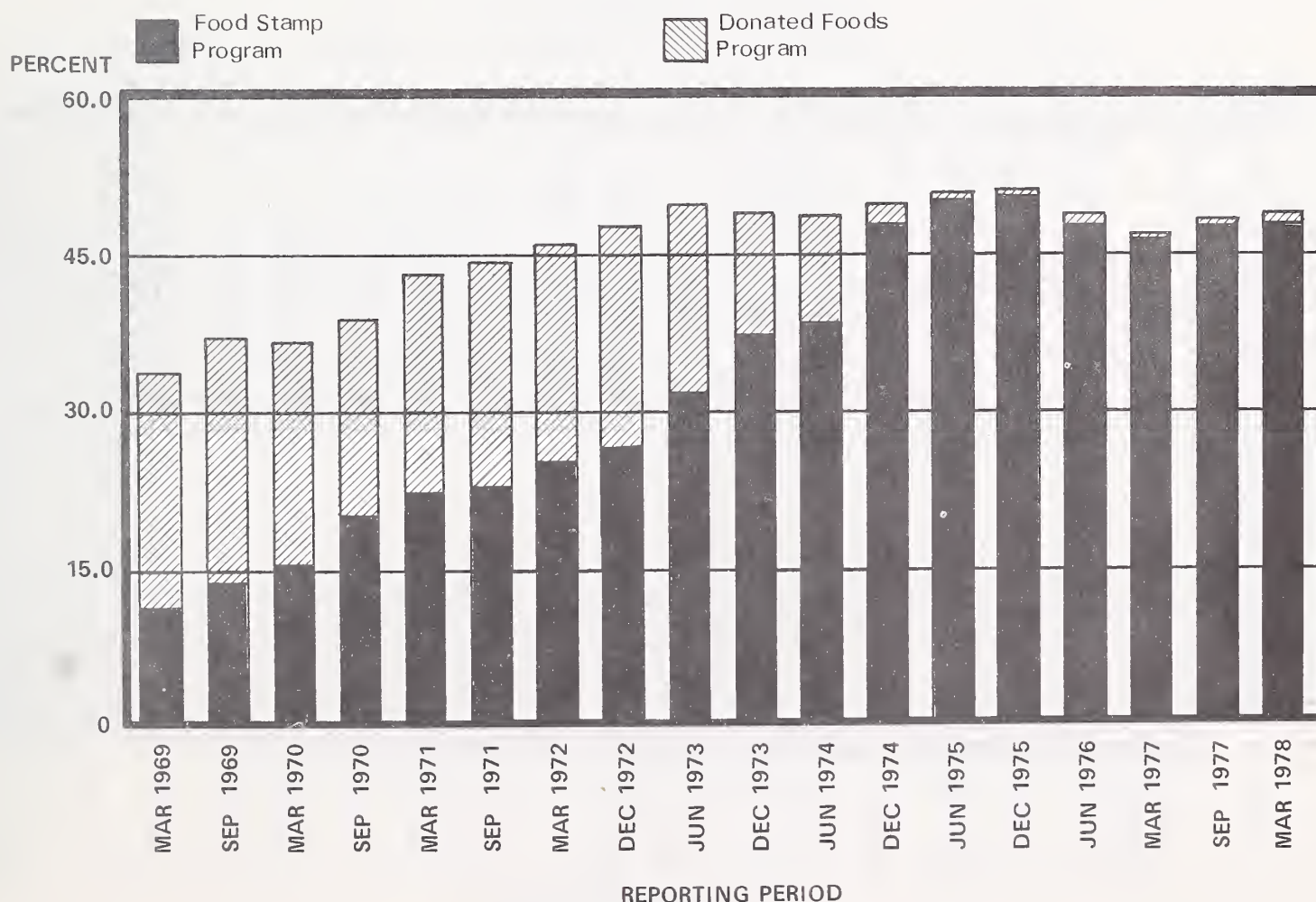
Family Members Under 19 Years of Age. EFNEP guidelines specify a concentration on homemakers with young children and families with a high proportion of children and youth. The percentage of Program family members under 19 years of age has been quite variable, but the average for the 16 reporting periods for which these data are available has been about 60.7 percent. It is possible that the drop after March 1972 results from variability associated with sampling initiated in mid-1972.

FIGURE 42.
Percentage of Family Members
Under 19 Years of Age



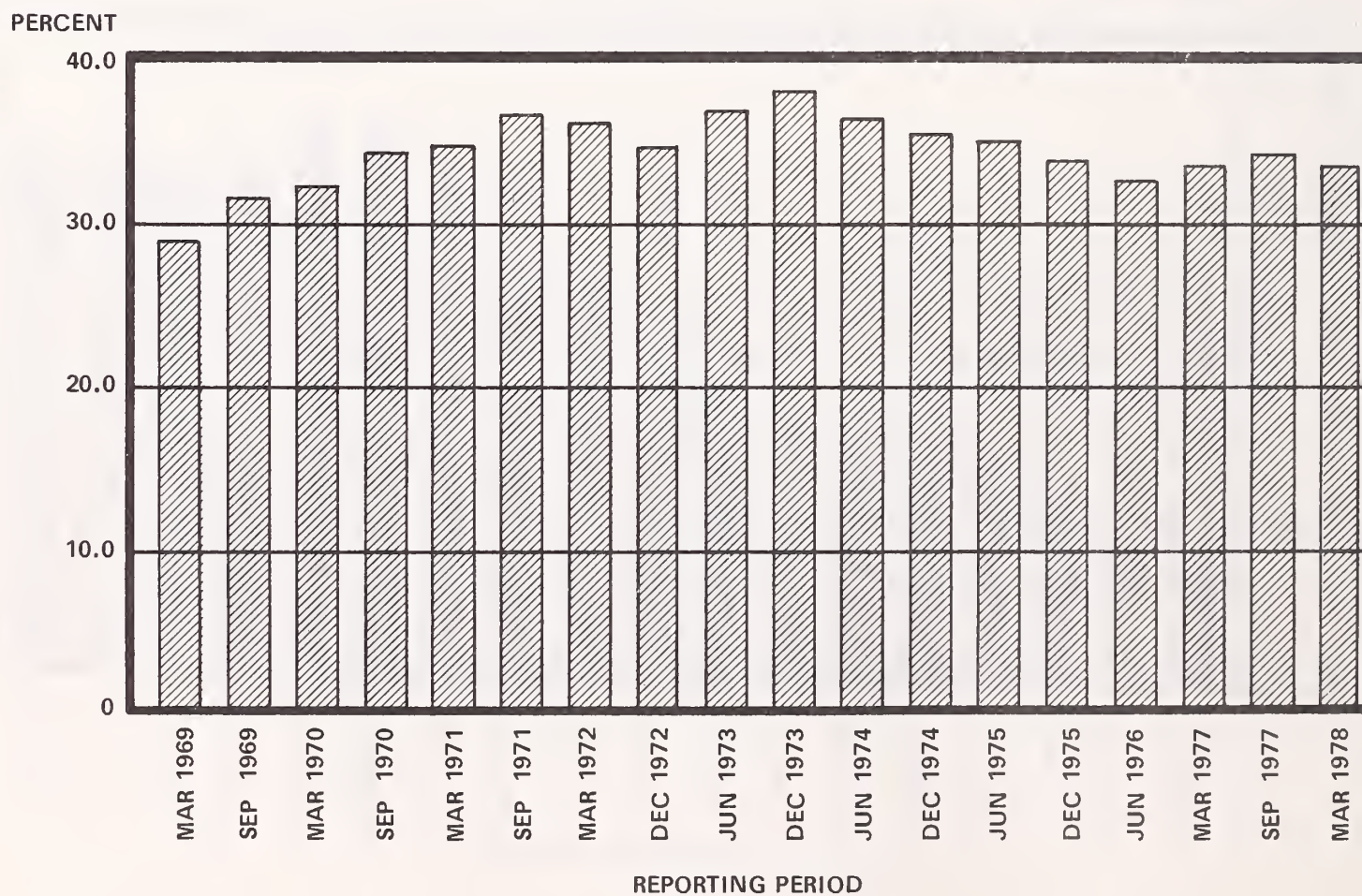
Program Family Participation in Food Programs. One of the subobjectives of EFNEP is to help families manage their resources related to food, including food stamps and food distribution programs. Families are taught how to utilize and buy the most nutritious diet. All Program families are told of the availability of food stamps and food distribution programs, and are referred to the offices of those programs for which they may be eligible. From March 1969 through December 1975 the percentage of families receiving food stamps rose steadily, leveling off at about 50 percent. For food distribution, the percentage of participation fluctuated irregularly between 18 percent and 23 percent from March 1969 through June 1973. The figures then dropped rapidly to the current level of under 1 percent. The reason for the sharp drop in food distribution participation is the phasing out of the food distribution program. Currently, food distribution programs operate mainly on Indian reservations.

FIGURE 43.
Percentage of Program Families Participating
in Food Assistance Programs



Program Family Welfare Reciprocity. The encouragement of participation in available welfare assistance is not a direct objective of EFNEP, but efforts are made to inform families of the economic and community benefits available to them. Until December 1973 the percentage of Program families receiving welfare assistance increased, if somewhat irregularly. Since that time, the percentage has been dropping, again somewhat irregularly. Over the 18 reporting periods there has been no strong trend.

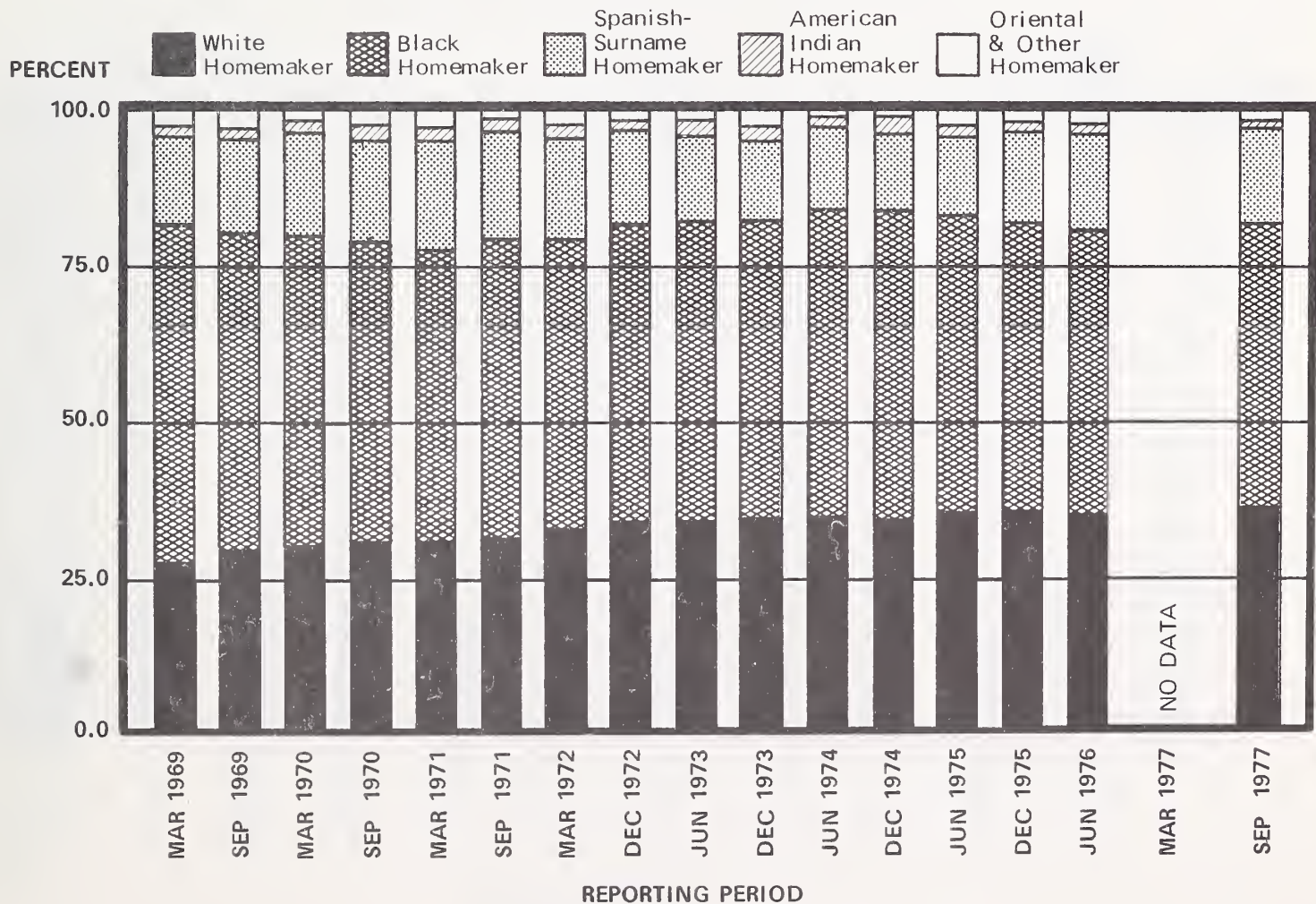
FIGURE 44.
Percentage of Program Families
Receiving Welfare Assistance



Percentage of Program Families in Various Racial/Ethnic Categories.

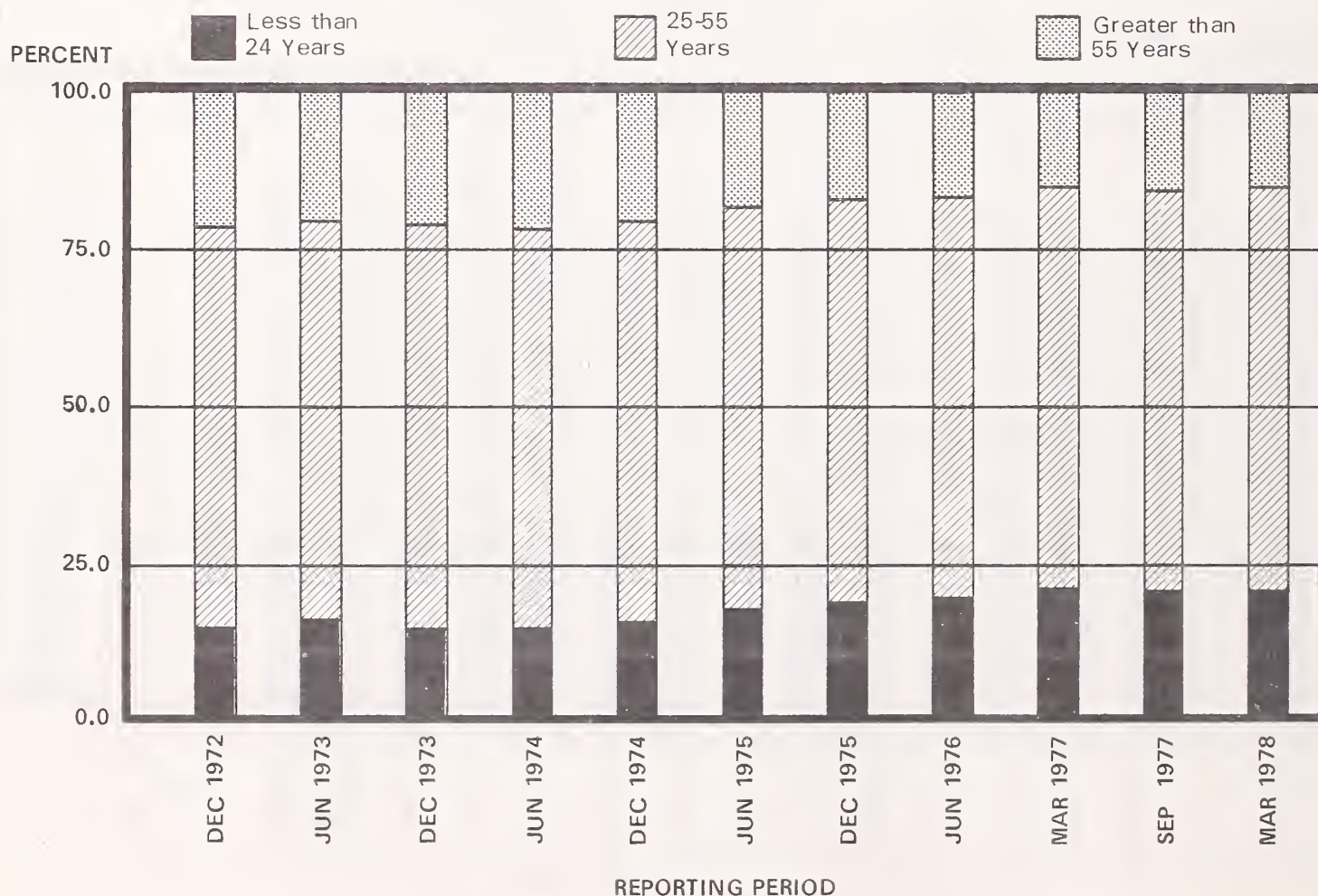
The percentage of white homemakers has risen steadily since March 1969 at a rate of about 0.8 percentage points per year. This upward trend has been accompanied by a corresponding downward trend in the percentage of black homemakers at a rate of about 0.7 percent per year. Other racial/ethnic categories have been either stable or too variable to show pronounced trends. The predominance of black and Spanish-surname families indicates a strong focus on what have traditionally been the most disadvantaged components of American society.

FIGURE 45.
Percentage of Homemakers in Various
Racial/Ethnic Categories



Homemaker Age. EFNEP has been charged with concentrating its efforts on families with young children. Since younger mothers are more likely to have younger children than older mothers, the age of Program homemakers may indicate the age of their children. Since December 1972 the percentage of homemakers less than 24 years of age has averaged about 18.5 percent and has risen steadily at a rate of about 1.3 percentage points per year. In the same period, the percentage of homemakers between 24 and 55 years of age has remained relatively constant at about 62.5 percent. The percentage of Program homemakers 56 years of age or older has averaged about 15.5 percent over the last 11 reporting periods, but these figures have been dropping steadily. This information indicates that EFNEP is successfully reaching and working with increasingly younger homemakers. In so doing, the chances of positively effecting changes in the diets of young families, who are in most need of adequate nutrition, have been enhanced.

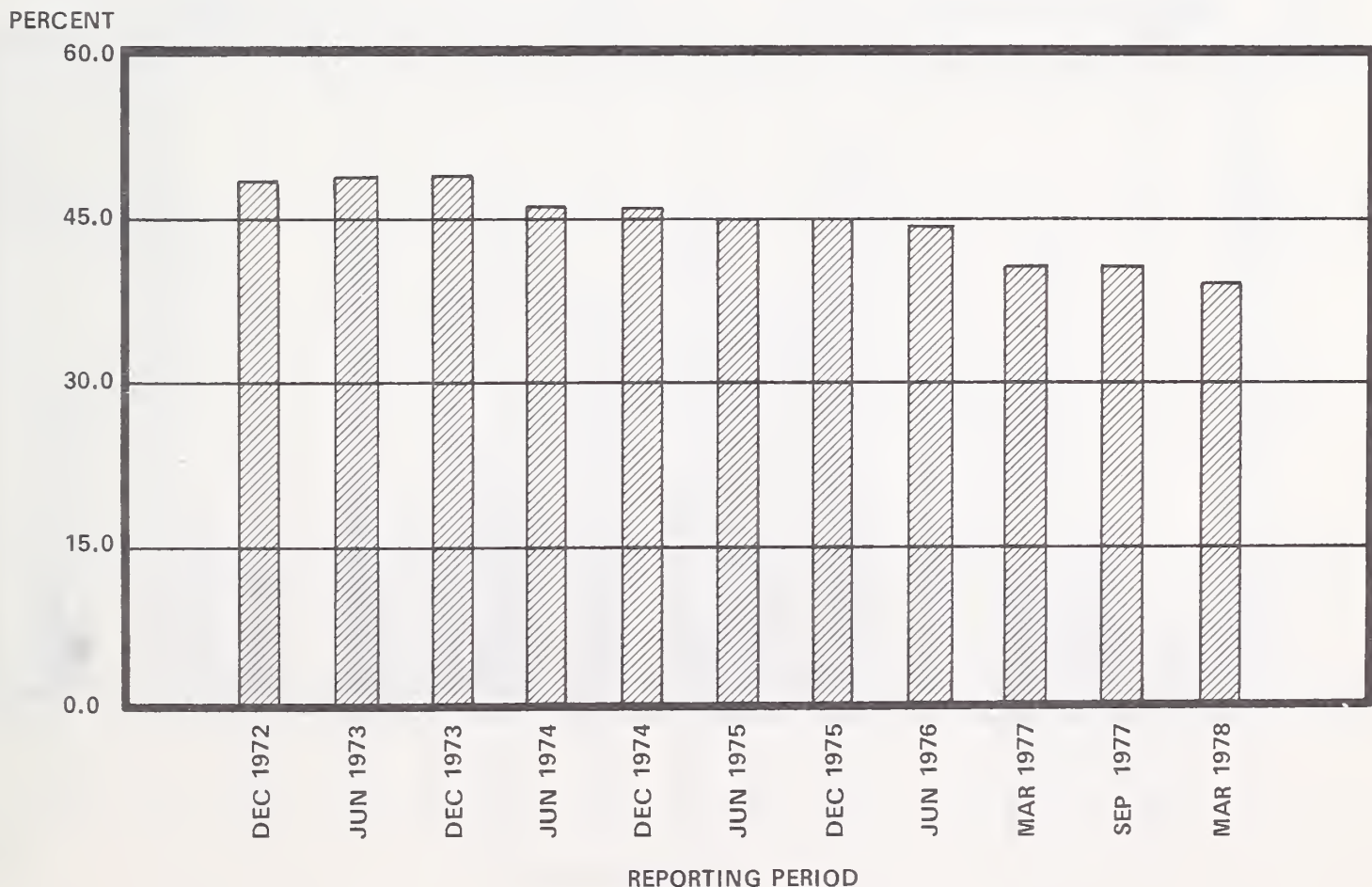
FIGURE 46.
Percentages of Program Homemakers
in Various Age Categories



Homemaker Education. One of the characteristics of low-income families is generally a low level of formal education. The figure below indicates that, from December 1972 on, the percentage of Program homemakers with an eighth grade education or less has been dropping at a rate of about 2 percentage points per year.

It should be noted that focusing on low-education homemakers is in some ways inconsistent with other objectives of EFNEP. Concentration on younger homemakers, for instance, means that the Program would be working with people who are likely to have more education because of the more stringent and rigorously enforced compulsory education laws of recent decades. It is unreasonable to expect, therefore, that the percentage of Program homemakers with less education can continue to increase. The data indicate, however, that the Program is continuing to locate homemakers who have low educational levels. From December 1972 through March 1978, the percentage of homemakers with an eighth grade education or less has averaged just over 45 percent. In 1977 only 24.3 percent of the U. S. population over 14 years of age had attained an eighth grade education or less.

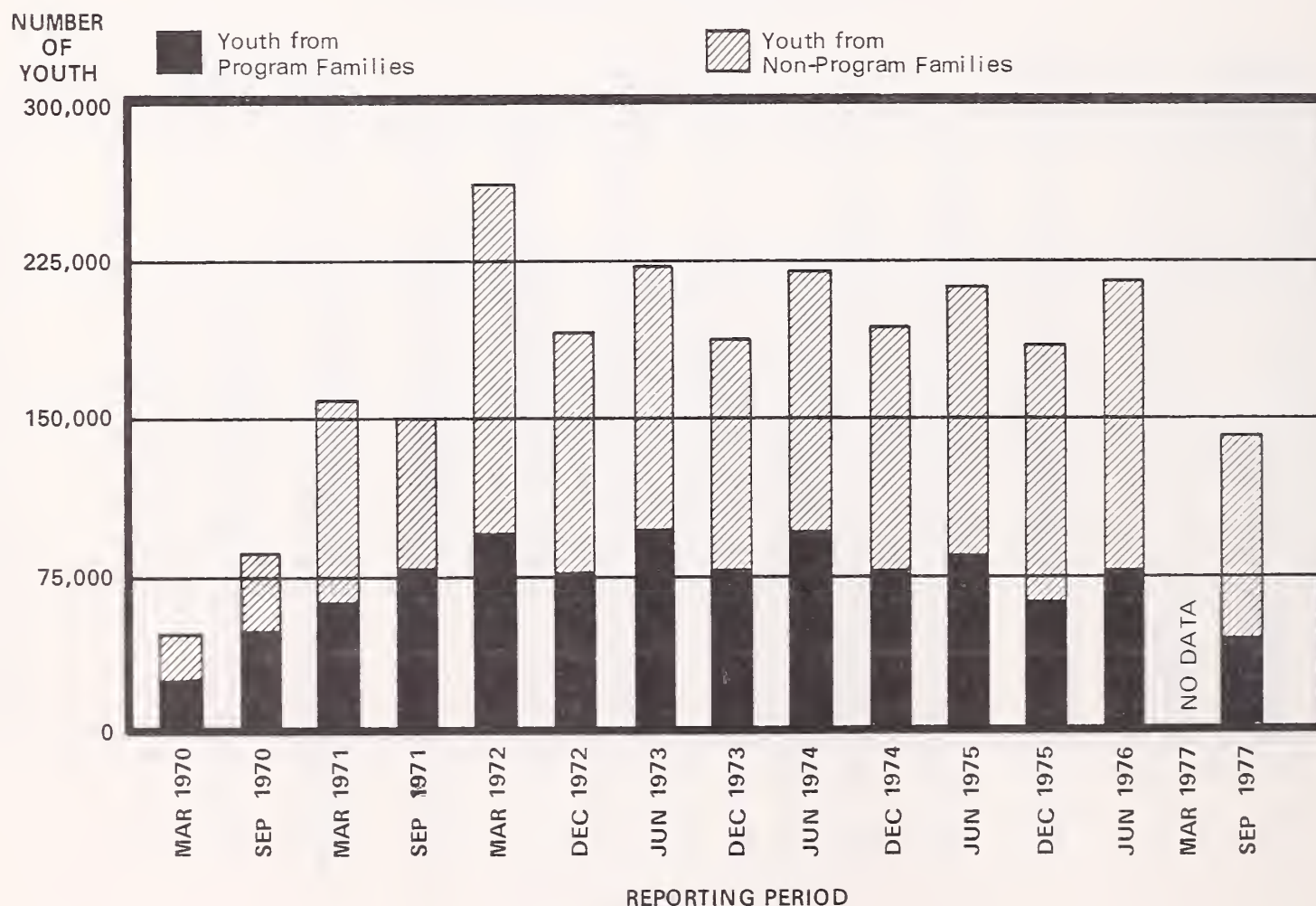
FIGURE 47.
Percentage of Program Homemakers with an
Educational Attainment of Eighth Grade or Less



Youth Participation. The total number of youth participating in the youth component of EFNEP has averaged about 180,000 for the past 14 reporting periods. The total number of youth rose relatively steadily from March 1970 through March 1972. Since this latter date the number of youth remained relatively stable until September 1977, when it dropped significantly. The change in the reporting periods (from the June-December periods to the March-September periods) which occurred after June 1976 may have had some effect on the observed levels of participation. On the average, about 75,000 youth from Program families were participating at the end of each reporting period; the comparable figure for youth from non-Program families is about 105,000. Neither category of youth participation has exhibited strong trends.

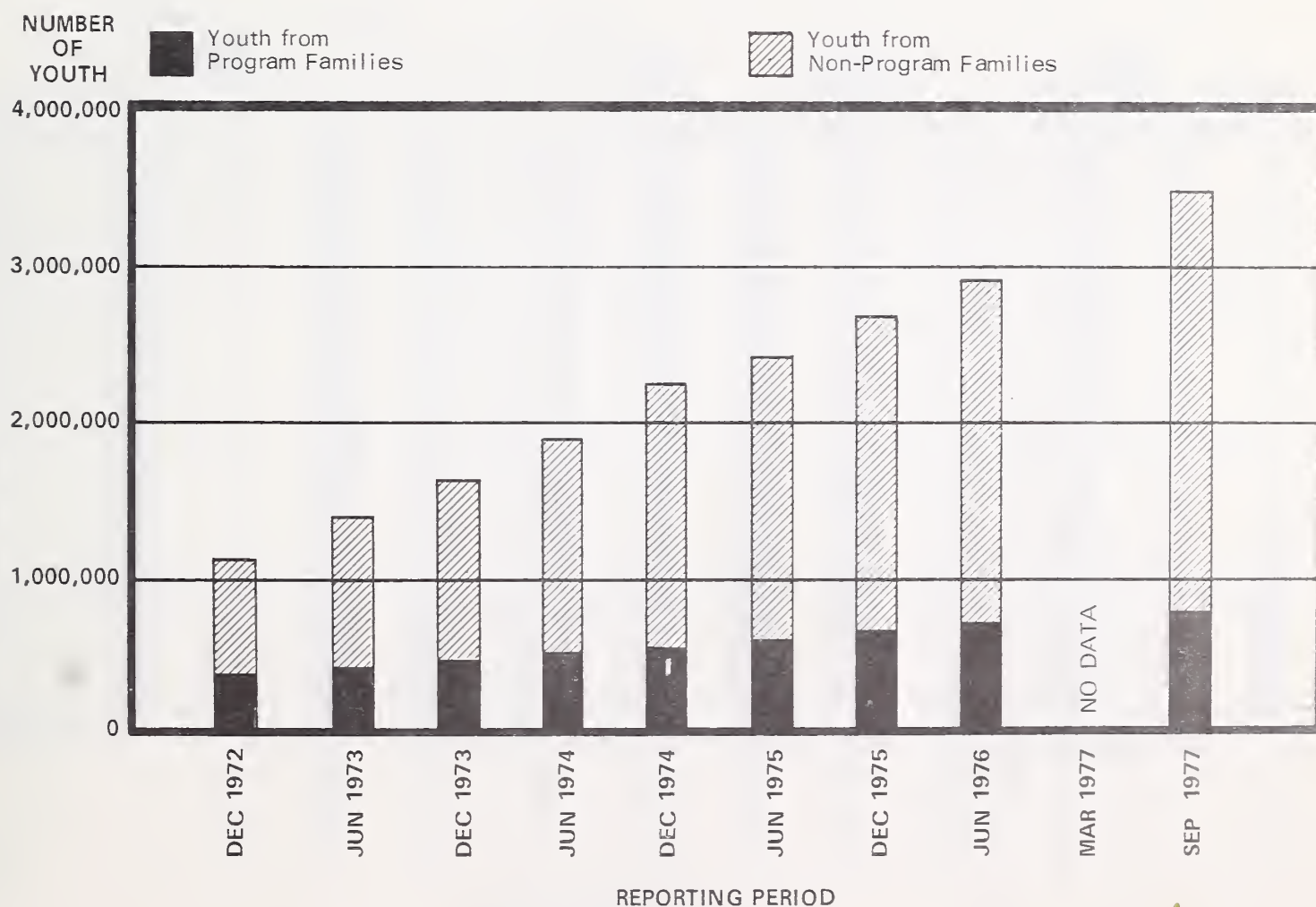
From December 1972 on, there has been a definite cyclical pattern in both total youth and youth from Program families. The numbers of participating youth in the June reporting periods were substantially higher than those for the December reporting periods. This situation is probably explainable in terms of: the greater likelihood of bad weather during the winter months; greater opportunity for attractive EFNEP activities for youth during the summer months; and the competition from Christmas activities during December.

FIGURE 48.
Number of Youth in 4-H EFNEP
at the End of Reporting Period



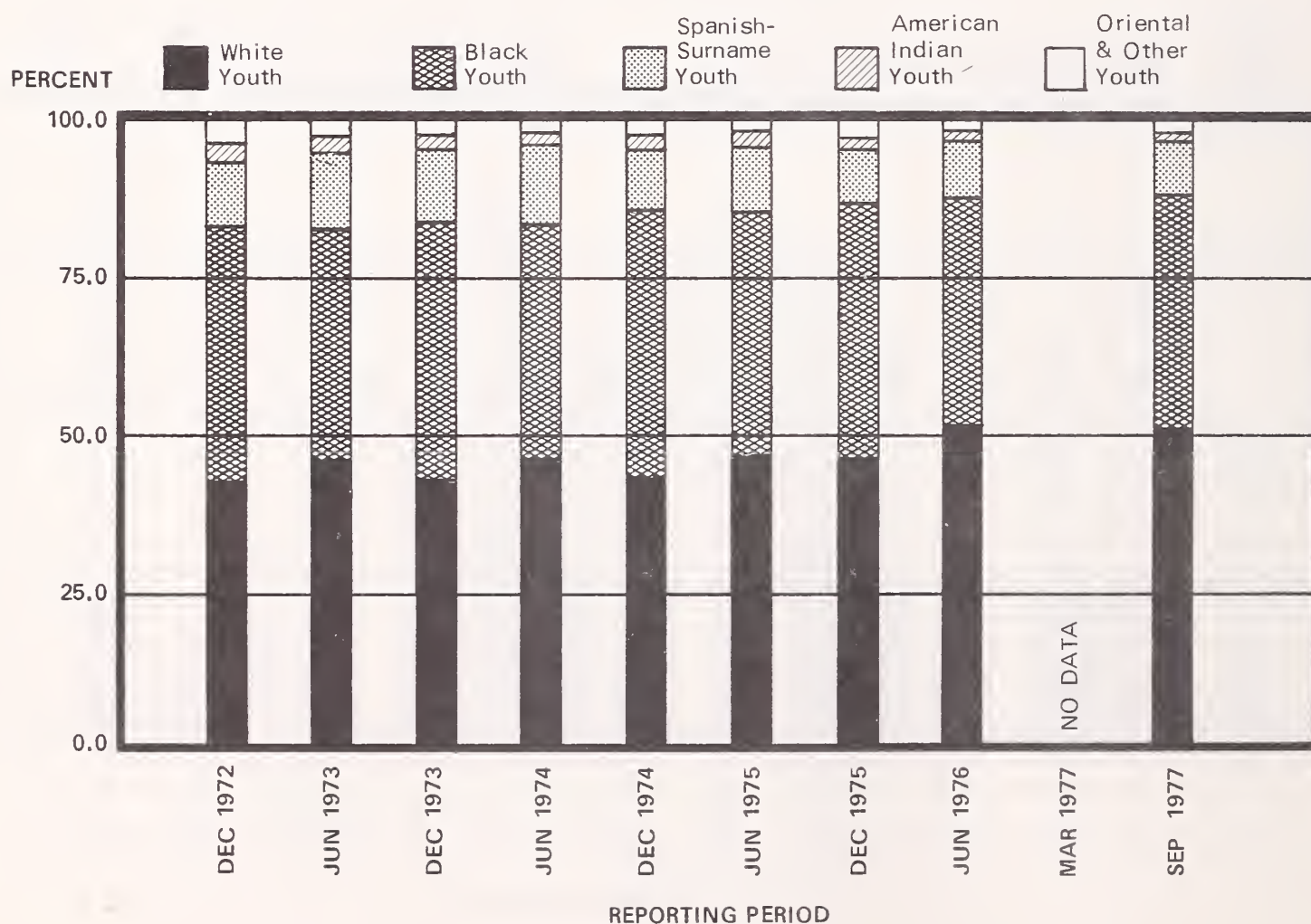
Cumulative Youth Participation. The figure below indicates the number of youth who have ever been enrolled in EFNEP since June 1972. Naturally, the number of youth increases steadily. By September 1977 almost 3.5 million youth had participated in the youth component of EFNEP.

FIGURE 49.
Cumulative Youth Participating in 4-H EFNEP



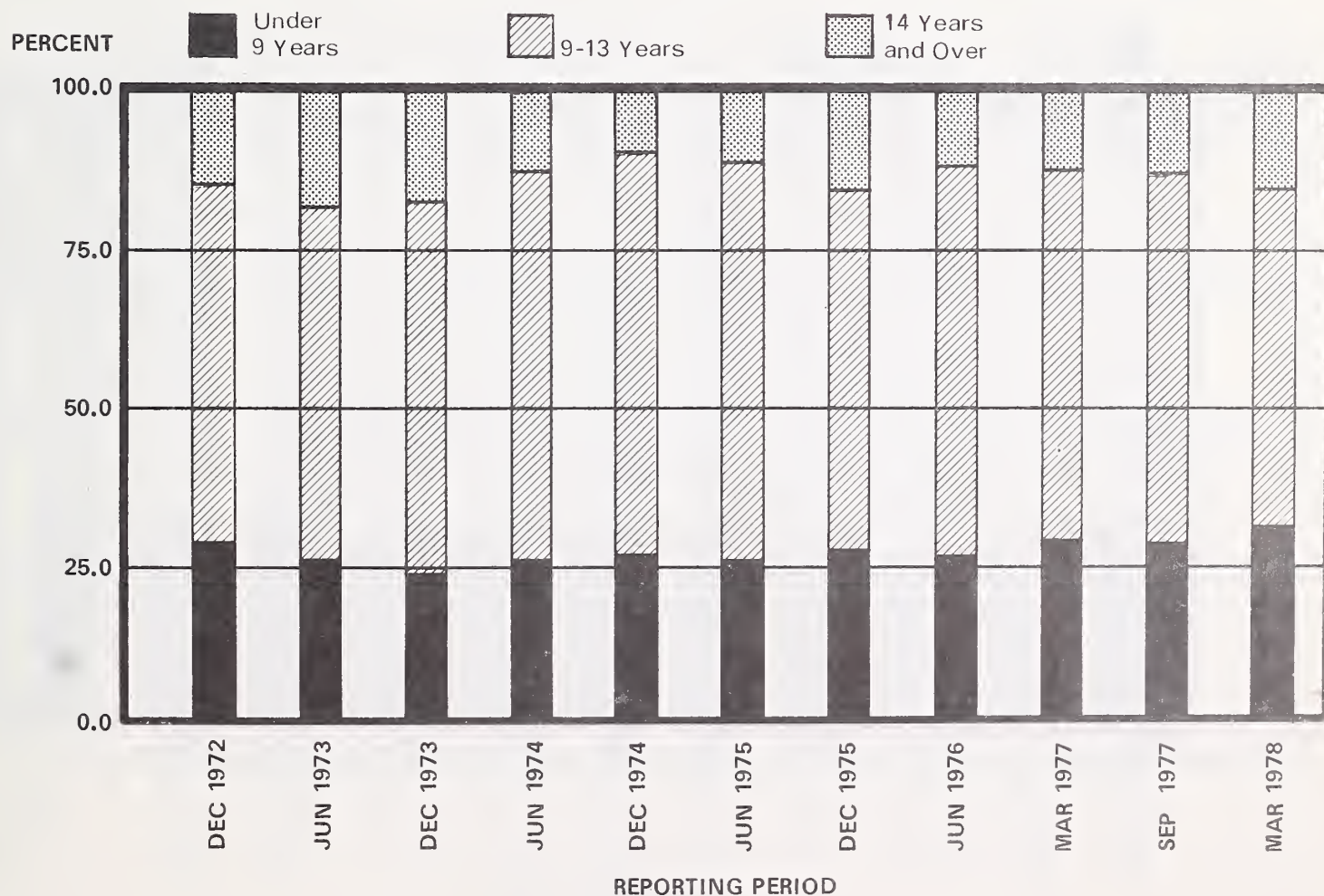
Racial/Ethnic Background of Youth. The racial/ethnic composition of participants in the youth component of EFNEP has changed markedly during the life of the Program. The percentage of white youth rose at a rate of about 1.4 percentage points per year between December 1972 and September 1977. During this time the percentages of black and Spanish-surname youth dropped at a rate of about 0.34 and 0.74 percentage points per year, respectively. Other racial/ethnic categories of youth are small in number, and so subject to rapid percentage changes that trends are difficult to discern. The Program remains strongly minority-oriented, with almost 50 percent of its youth participants being in nonwhite categories.

FIGURE 50.
Percentage of 4-H EFNEP Youth in Various
Racial/Ethnic Categories



Age of Female Youth. The proportion of female 4-H EFNEP youth under 9 years of age has been growing fairly steadily between December 1972 and March 1978; the rate of increase has been about 0.74 percentage points per year. During the same time period, the percentage of female youth older than 14 has been dropping at about 0.78 percentage points per year and the percentage of female youth in the 9-13 year age range has varied between 55 and 62 percent. There is no strong trend in these figures.

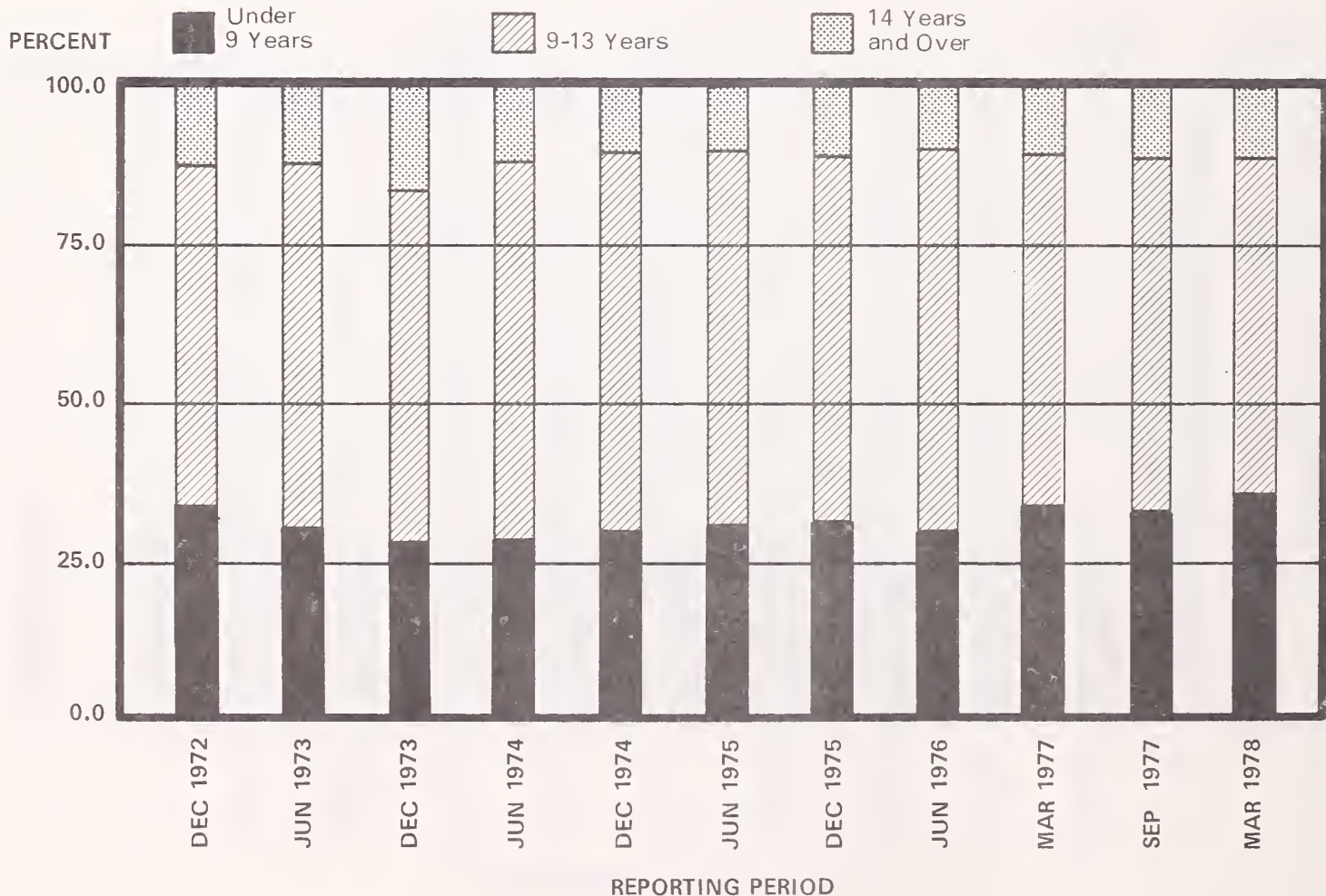
FIGURE 51.
Percentage of Female Youth in Various
Age Categories



Age of Male Youth. The proportion of male 4-H EFNEP youth under 9 years of age has been somewhat variable, but has been increasing over the December 1972 to March 1978 time period at a rate of about 0.62 percentage points per year. At the same time, the percentage of male youth over 14 years of age has dropped at about 0.66 percentage points per year. There has been no consistent trend in the percentage of male youth in the 9-13 year age range; the figures in this category peaked between June 1974 and June 1976 and have dropped steadily since then.

In comparing the age distributions for male and female youth, it is evident that males are somewhat younger than females. This is probably explainable in terms of socially encouraged roles for young men and women.

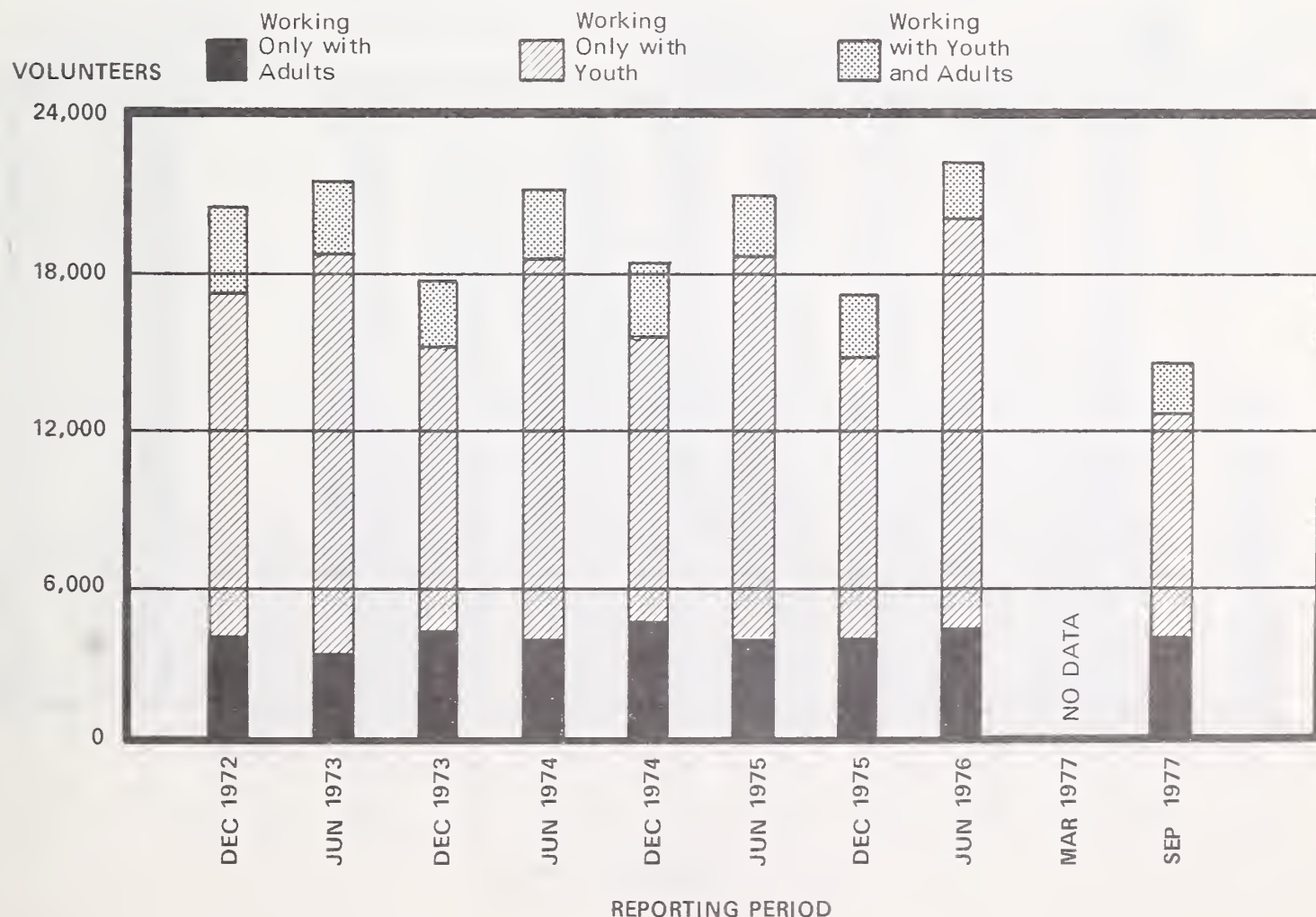
FIGURE 52.
Percentage of Male Youth in Various
Age Categories



Volunteers. Volunteers working only with adults averaged just over 3,750 from December 1972 through June 1976. The level dropped slightly to about 3,700 in September 1977. Volunteers working only with youth averaged just under 14,000 from December 1972 through June 1976, but this figure dropped about 30 percent to just over 9,500 in September 1977. The number of Volunteers working with both youth and adults underwent a relatively slow and steady decline from December 1972 through June 1976, then dropped to under 1,700 from an average of about 2,400 for the previous 8 reporting periods.

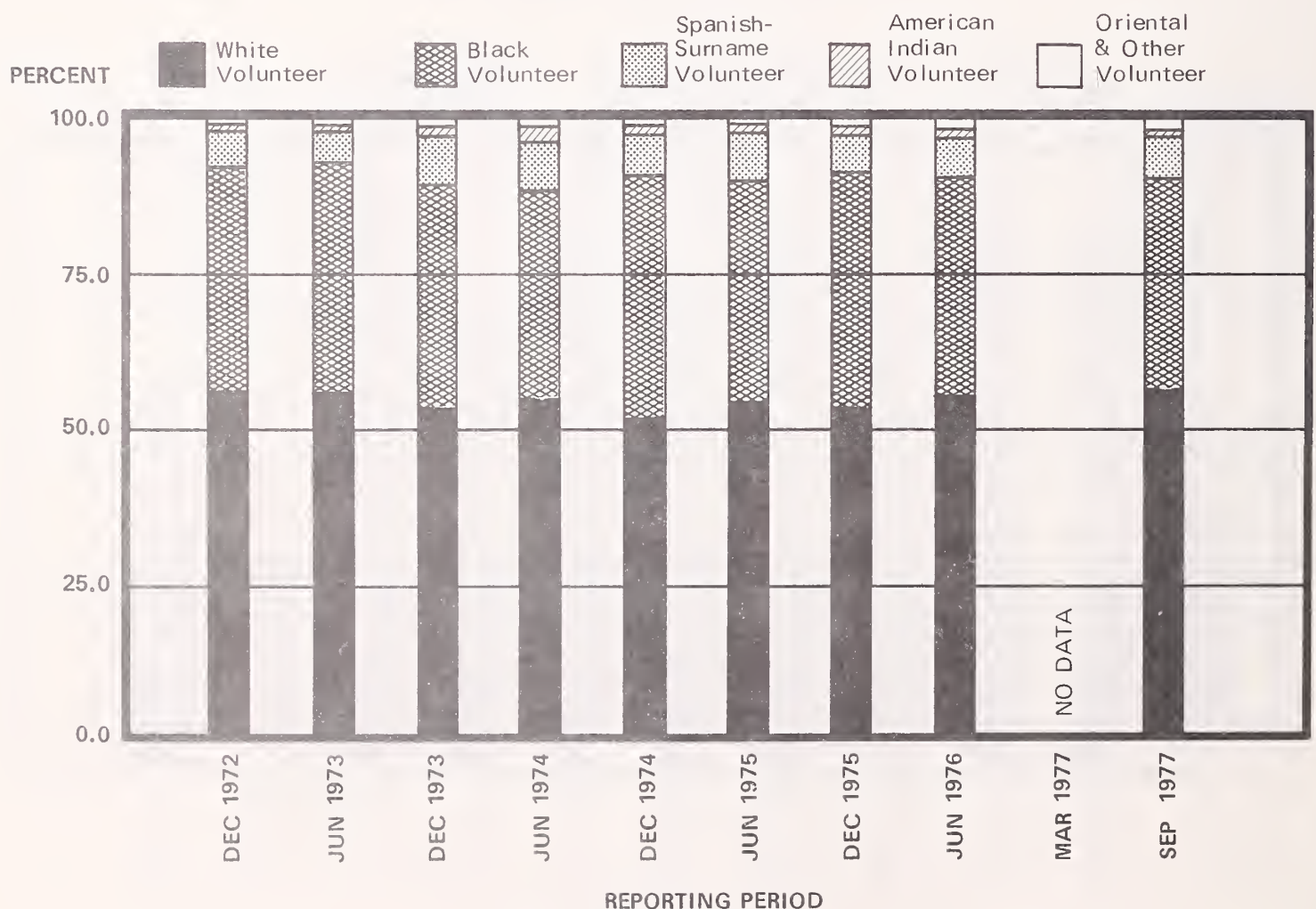
The total number of Volunteers shows no strong upward or downward trend, but the 15,000 Volunteers active at the end of September 1977 is about 26 percent less than the average of over 20,000 for the previous 8 reporting periods. It is apparent that Volunteers in EFNEP are becoming more specialized, tending to work more and more with either adults or youth, but not both. The majority of Volunteers have worked exclusively with youth--between 64 and 73 percent for the past 9 reporting periods. The number of Volunteers working with youth shows the same cyclical pattern as the number of youth participants. It is likely that reduction in some categories of Volunteers in September 1977 is due to a combination of factors: changes in policy guidelines to permit paid Program Aides to work with youth and due to the decline in real dollars available to the Program, a reduced level of Volunteer operations that EFNEP can effectively support.

FIGURE 53.
Volunteers in Various Categories at the
End of the Reporting Period



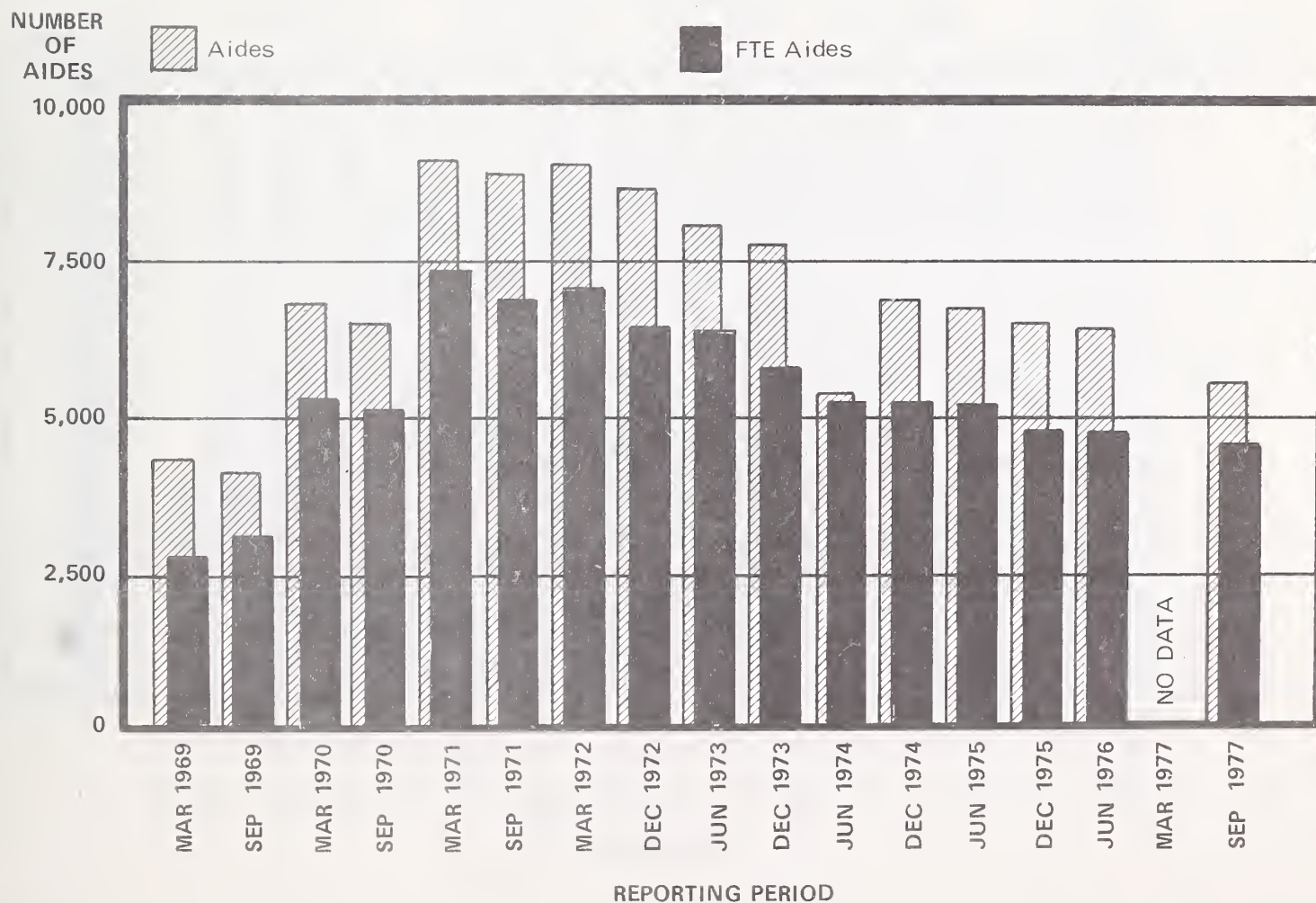
Racial/Ethnic Background of Volunteers. There has been no consistent trend in any racial/ethnic category of Volunteers in the December 1972 to September 1977 interval. The percentage of white Volunteers has averaged about 54 percent during this time period, while about 38 percent of Volunteers have been black. Just under 7 percent of Volunteers have come from Spanish-surname backgrounds, while about 1 percent have been American Indians. Considerably less than 1 percent of Volunteers have Oriental backgrounds or are from backgrounds not otherwise classifiable into categories used in EFNEP.

FIGURE 54.
Percentage of Program Volunteers in Various
Racial/Ethnic Categories



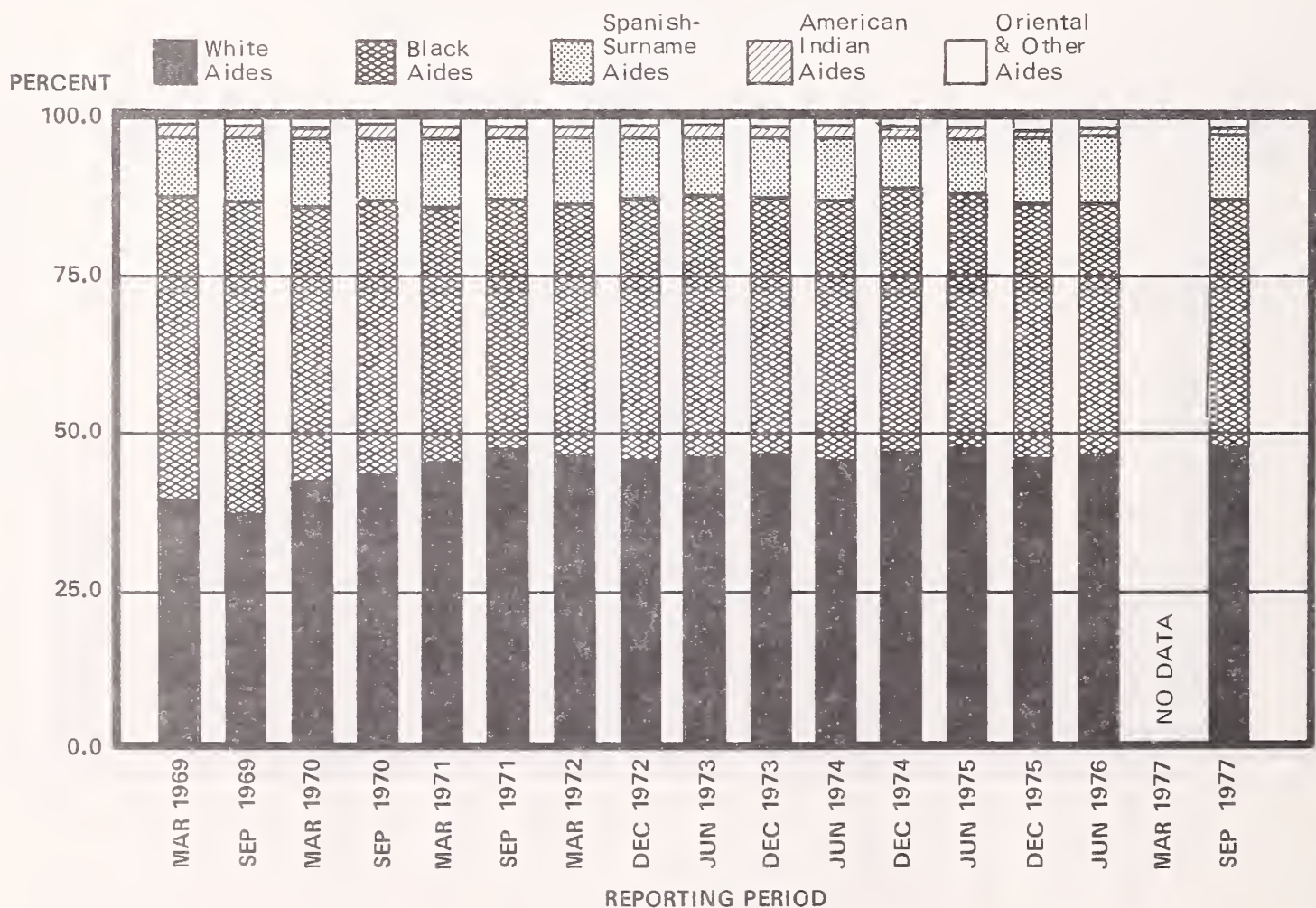
Program Aides. After the initial growth of EFNEP, the number of paraprofessional Program Aides has dropped from a peak of just over 9,000 in March 1971 to slightly under 6,000 in September 1977. The reasons for the decline in the number of Aides are, of course, the constant dollar funding of EFNEP and inflation. The number of full-time equivalent (FTE) Aides follows the same pattern. The correct formula in calculating FTE Aides is the number of payroll hours divided by 2,080 (which represents 40 hours times/multiplied by 52 weeks).

FIGURE 55.
Number of Aides and Full-Time Equivalent (FTE) Aides
in EFNEP at the End of the Reporting Period



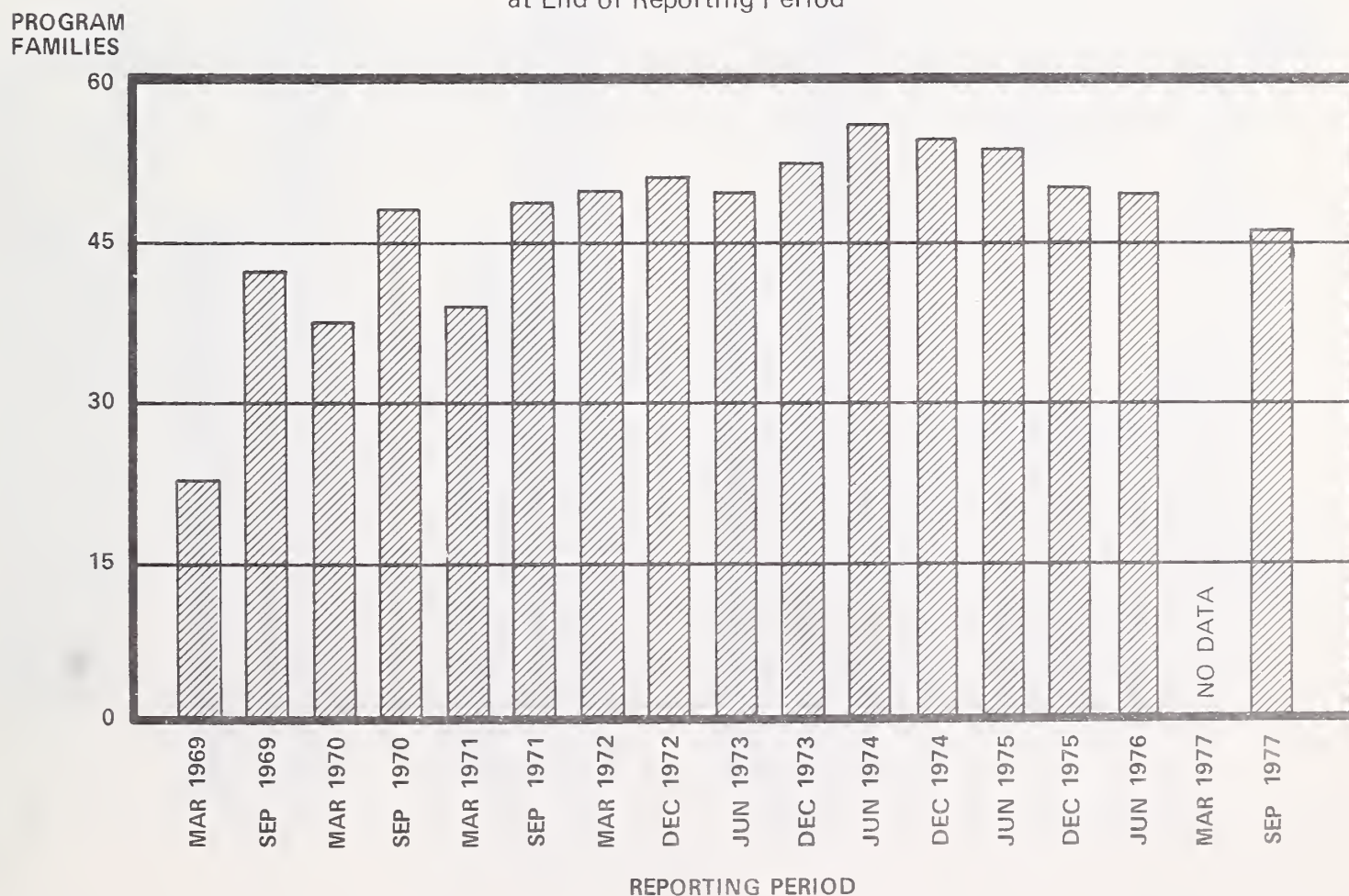
Racial/Ethnic Background of Aides. The percentage of white Aides increased sharply, if somewhat erratically, from March 1969 through March 1971. Since then, the figures have remained relatively constant at between 46 percent and 48 percent. The situation is similar but reversed for black Aides--there was a sharp drop between March 1969 and March 1971, followed by a leveling off at between 38 percent and 41 percent. Other racial/ethnic categories either show no consistent trend or are comprised of too few Aides to permit valid analysis. It is likely that the initial shifts in the racial/ethnic background of EFNEP Aides were associated with the immaturity and rapid expansion of the Program at the time. As EFNEP matured, the racial/ethnic mix of Aides then attained stability.

FIGURE 56.
Percentage of Program Aides in Various
Racial/Ethnic Categories



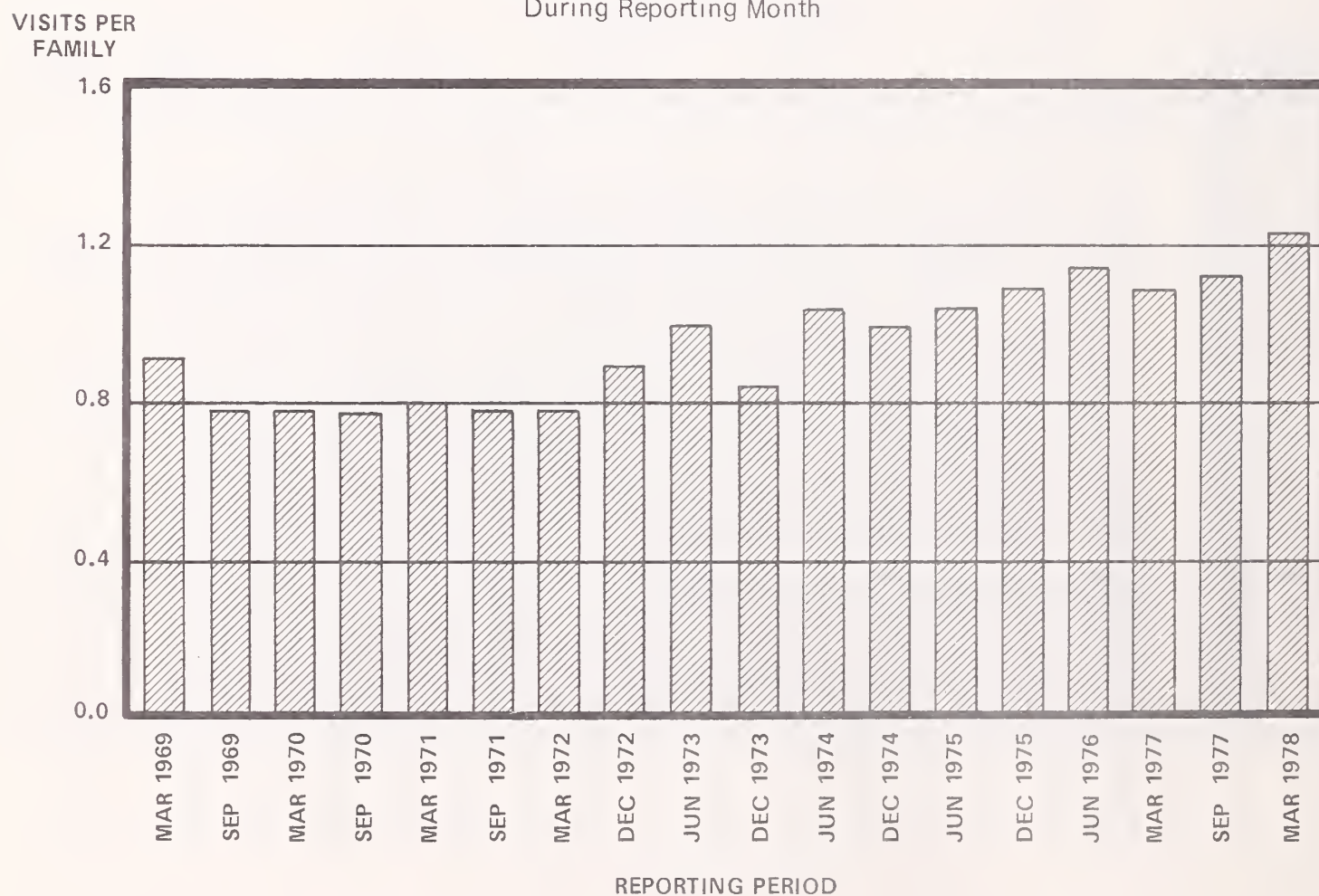
Program Families per FTE Aide. One good measure of the efficiency of the adult component of EFNEP is the number of Program families per FTE Aide. The higher the number, the greater the number of families with which the average Aide works. This index of Program efficiency rose steadily through June 1974, to about 55 and then remained relatively constant until September 1977, at which time it dropped to just over 45. This value is about 5 percent lower than the average for the previous 15 reporting periods. The effect of the change in reporting months is unknown, although there is little evidence of a seasonal cycle prior to September 1977. It should be noted, however, that changes to EFNEP guidelines in 1977 permitted funds formerly used only to employ professionals to work with youth to be used to employ both professionals and paraprofessionals. It may be that Aides are spending more time working with youth, and therefore have less time to work with Program families. For Fiscal Year 1977, the cost per Program family was \$179.31, or \$14.94 per Program family per month. The constant dollar (1967) amounts are \$100.41, \$8.37 respectively.

FIGURE 57.
Program Families per FTE Aide
at End of Reporting Period



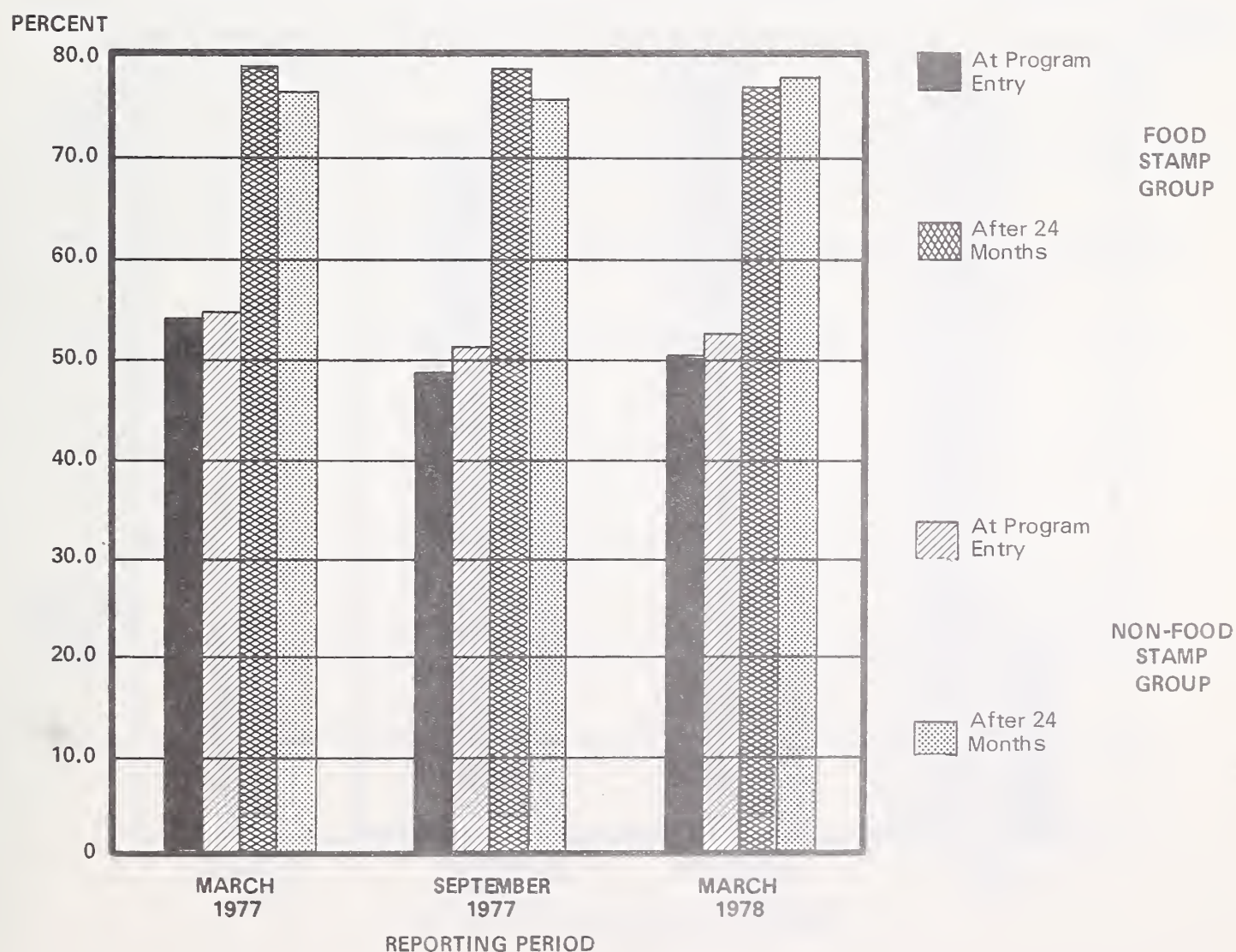
Aide Visits per Program Family. All other things held constant, the number of Aide visits per Program family is an index of the proportion of time Aides spend working directly with Program families. The higher the number, the more efficient the average Aide in terms of overall work with Program families. Since March 1969 Aides have averaged about 0.95 visits per Program family per month. This index has been increasing at a rate of about 0.04 visits per Program family per month. It appears, then, that EFNEP Aides have been steadily increasing their efficiency in making working visits to Program families.

FIGURE 58.
Aide Visits per Program Family
During Reporting Month



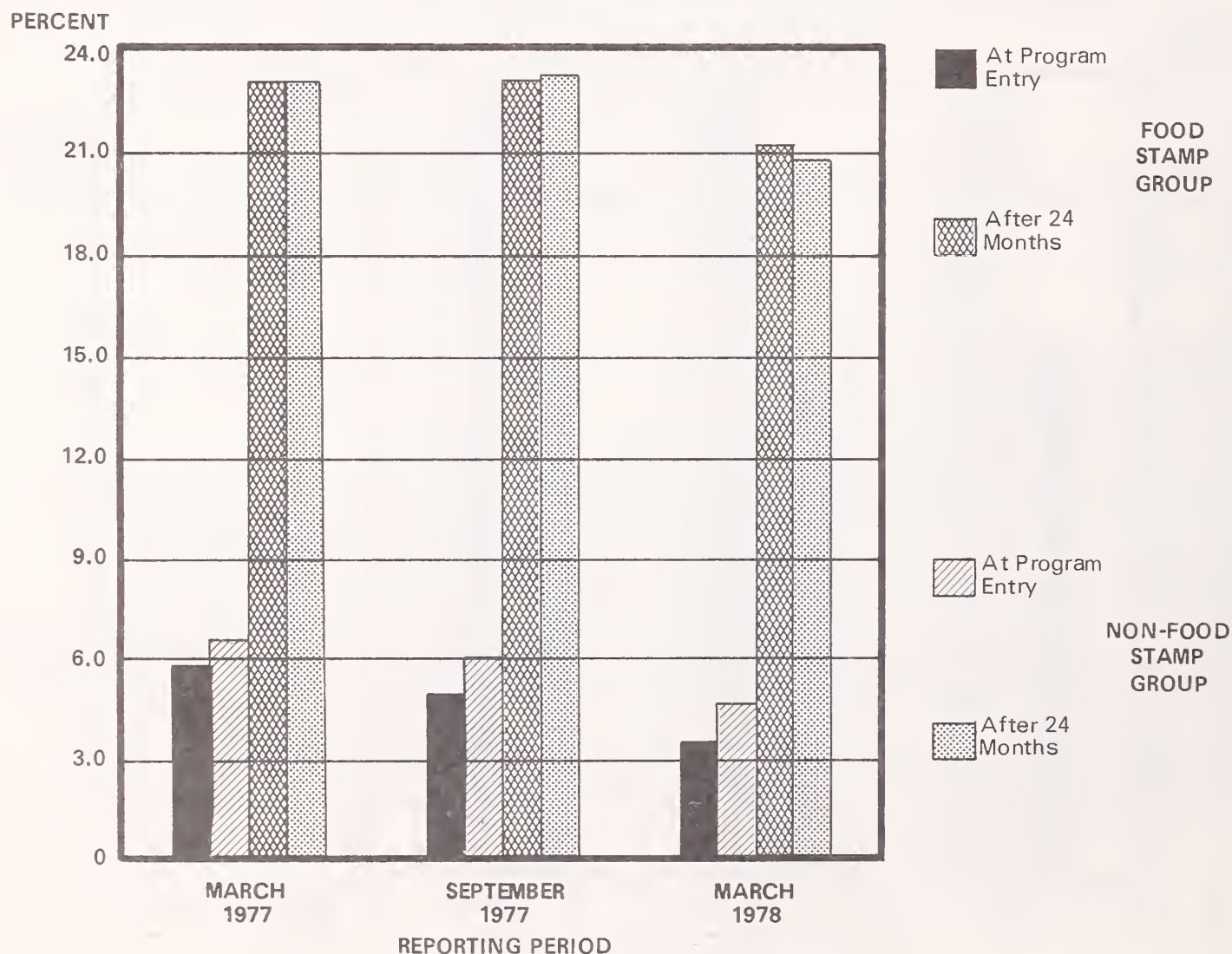
Percentage of Homemakers with at Least One Serving from Each Food Group at Program Entry and After 24 Months of Program Participation. EFNEP participants in the food stamp group have scores slightly lower than the non-food stamp group at Program Entry. For March 1977 and September 1977, this situation is reversed after 24 months of participation, with the food stamp group scoring slightly higher. For the March 1978 reporting period, the percentage for non-food stamp is slightly higher after 24 months. The differences are slight, and there would appear to be no differences of practical significance between the two groups.

FIGURE 59.
Percentage of Food Stamp and Non-Food Stamp Homemakers
with at Least One Serving from Each Food Group at Program Entry
(Food Recall #1) and After 24 Months of Program Participation (Food Recall #5)



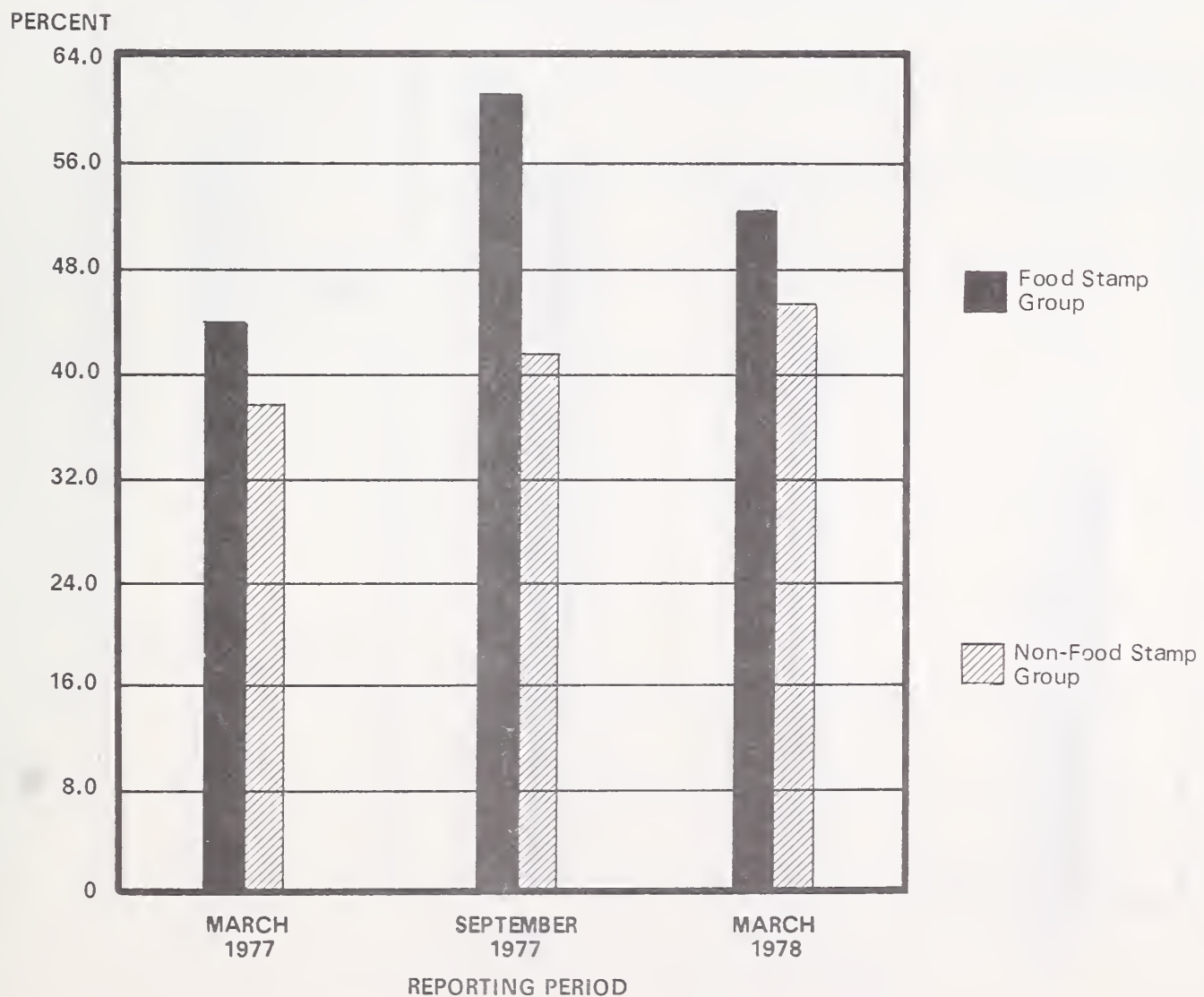
Percentage of Homemakers with Adequate Servings in All Food Groups at Program Entry and After 24 Months of Program Participation. A slightly lower average percentage of food stamp recipients have adequate diets at Program entry than do homemakers who do not participate in the food stamp program: 4.7 versus 5.7 percent. After 24 months of Program participation, there is essentially no difference between the two groups--both average about 22 percent. The trend in both groups is downward, although the limited number of observations does not permit an assessment of the stability or practical significance of this trend.

FIGURE 60.
Percentage of Food Stamp and Non-Food Stamp Homemakers
with Adequate Servings in All Food Groups at Program Entry
(Food Recall #1) and After 24 Months of Program Participation (Food Recall #5)



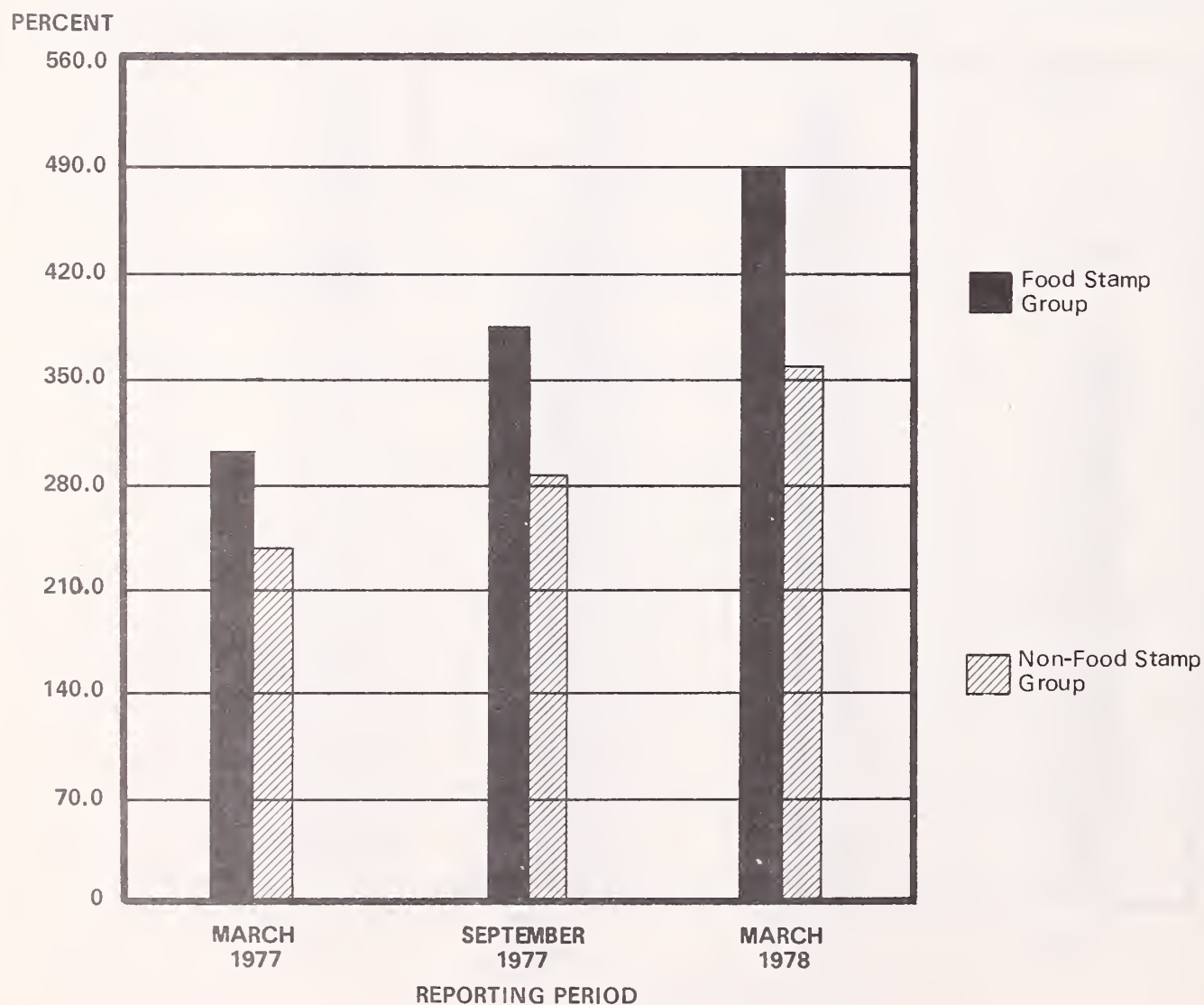
Percent Difference Between Entry Scores and Scores After 24 Months of Program Participation: Percentage of Homemakers with Minimum Diets. Percentage differences are higher for the food stamp group than for the non-food stamp group: 52 versus 42 percent. This may indicate that the Program is working somewhat more effectively with food stamp recipients, though the differences are not large and the number of observations are too limited to draw any firm conclusions.

FIGURE 61.
Percentage Difference Between Entry Level Scores and
Scores After 24 Months of Program Participation:
Percentage of Food Stamp and Non-Food Stamp Homemakers with Minimum Diets



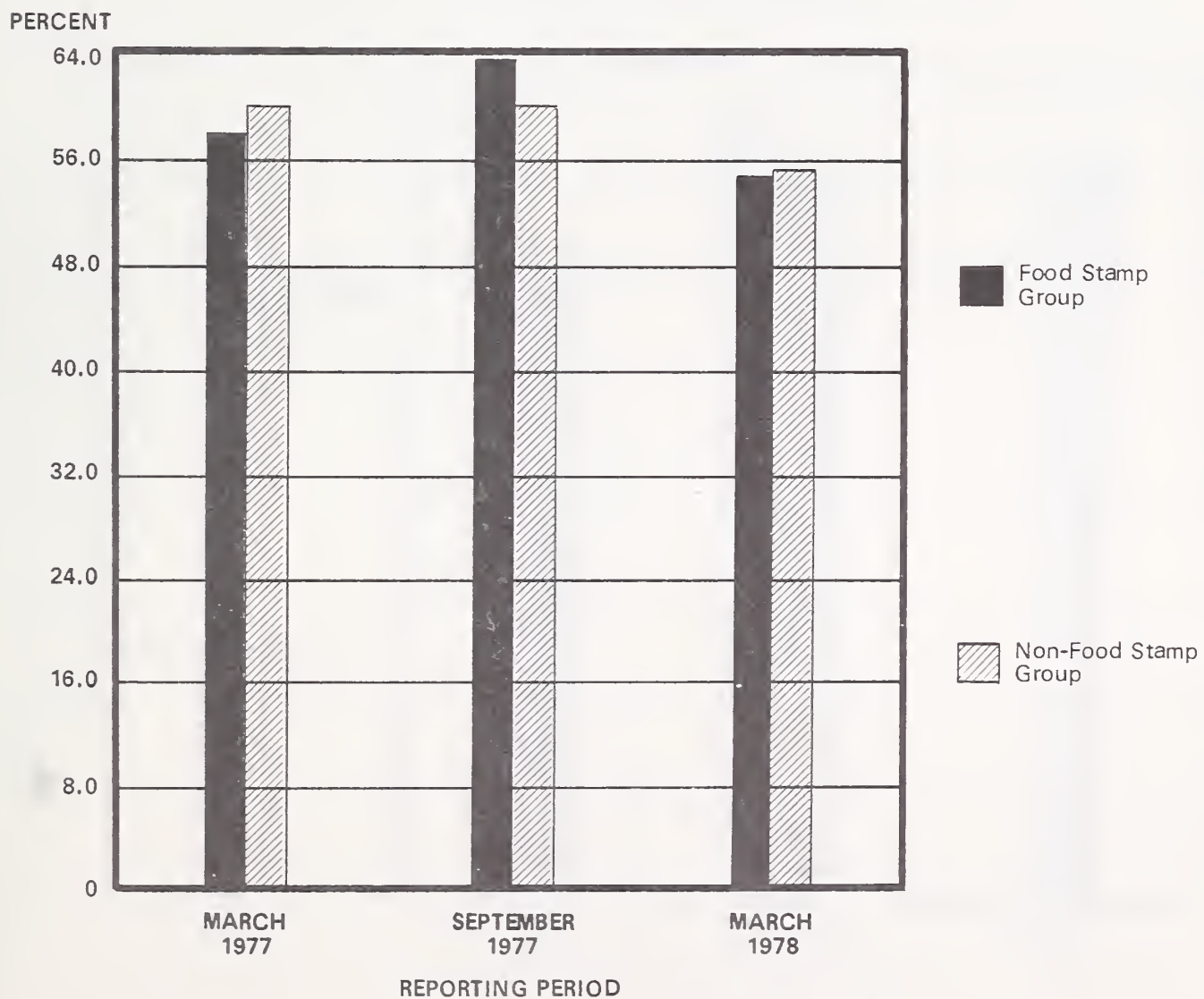
Percent Difference Between Entry Scores and Scores After 24 Months of Program Participation: Percentage of Homemakers with Adequate Diets. Percentage differences in the food stamp group (390 percent average) are higher than the comparable differences in the non-food stamp group (300 percent average). Again, these differences are not large, but they have been consistent over the last three reporting periods. If there is any significance in these measures, they indicate that the Program is working somewhat more effectively with the food stamp group than with the non-food stamp group.

FIGURE 62.
Percentage Difference Between Entry Level Scores and
Scores After 24 Months of Program Participation:
Percentage of Food Stamp and Non-Food Stamp Homemakers with Adequate Diets



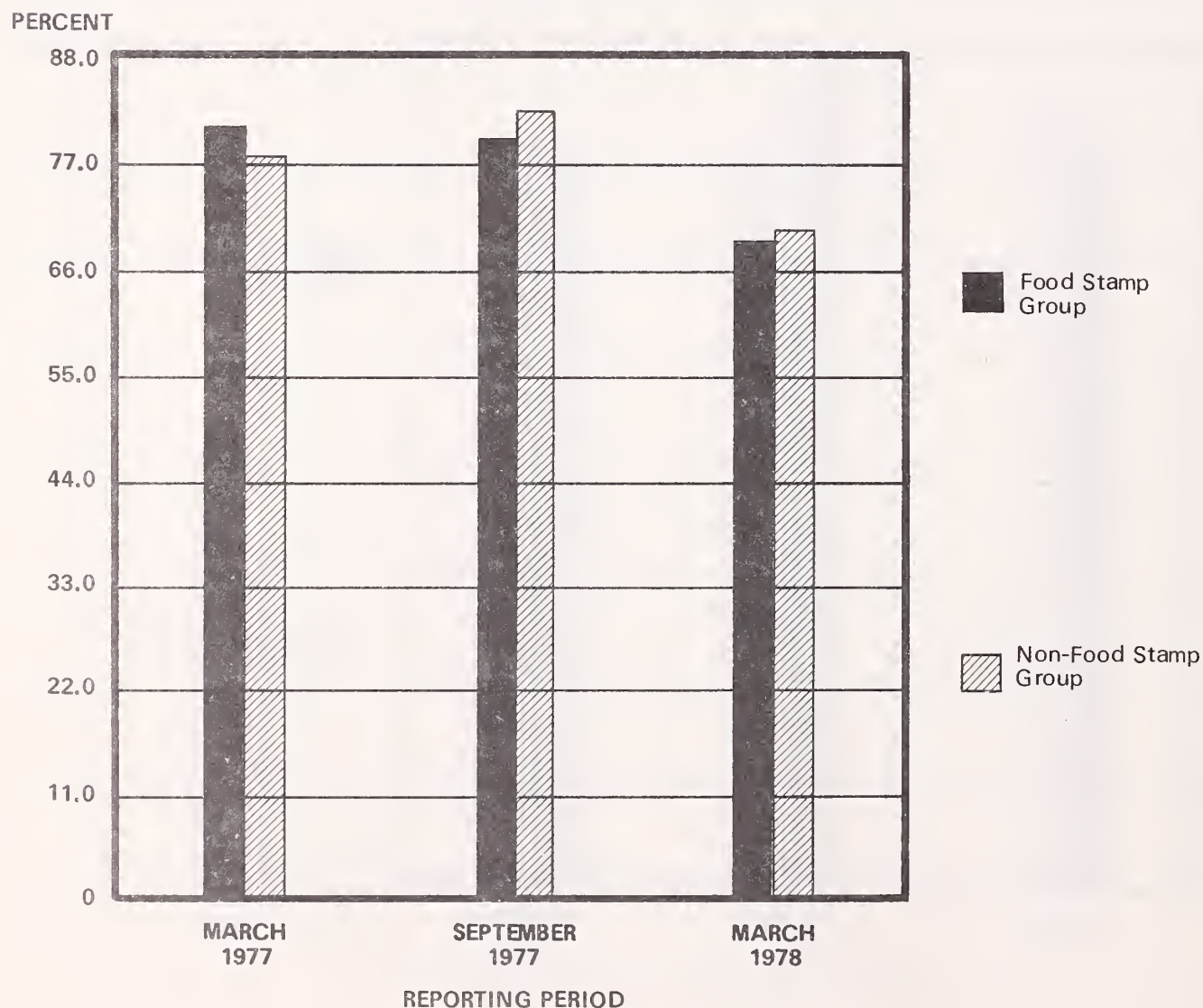
Percent Difference Between Entry Scores and Scores After 24 Months of Program Participation: Percentage of Homemakers Reporting No Servings of Milk. The average values for the last three reporting periods are virtually identical for the food stamp (58.6 percent) and non-food stamp (58.4 percent) groups. No consistent trend pattern is noticeable.

FIGURE 63.
Percentage Difference Between Entry Level Scores and
Scores After 24 Months of Program Participation:
Percentage of Food Stamp and Non-Food Stamp Homemakers
Reporting No Servings of Milk



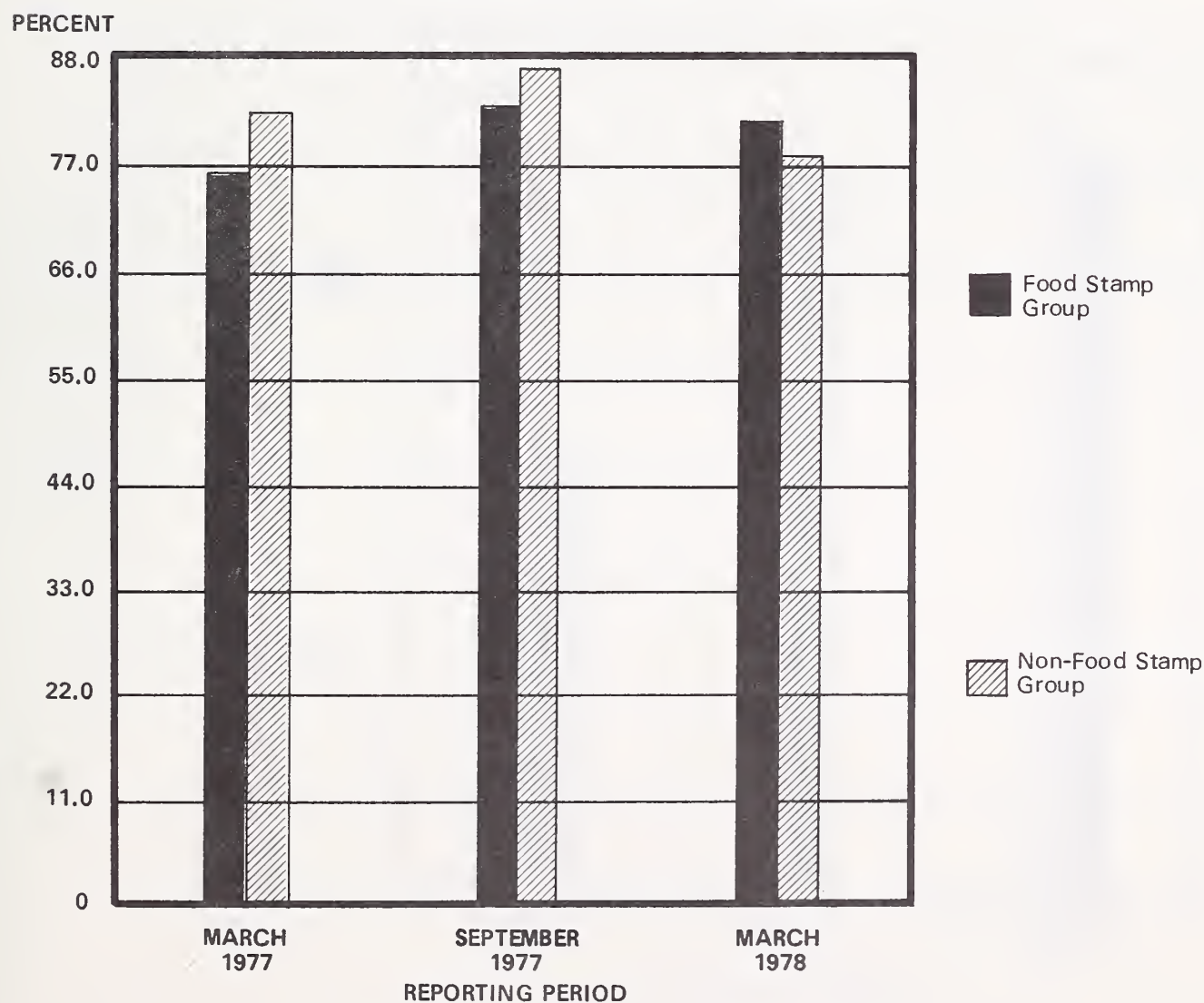
Percent Difference Between Entry Scores and Scores After 24 Months of Program Participation: Percentage of Homemakers Reporting No Servings of Meat. Again, there is no consistent difference between the two groups in the percentage drop in the proportion of homemakers reporting no meat servings after 24 months of Program participation. The average percentage for the food stamp group (77.1 percent) is almost identical to that of the non-food stamp group (76.9 percent). No consistent trend is evident.

FIGURE 64.
Percentage Difference Between Entry Level Scores and
Scores After 24 Months of Program Participation:
Percentage of Food Stamp and Non-Food Stamp Homemakers
Reporting No Servings of Meat



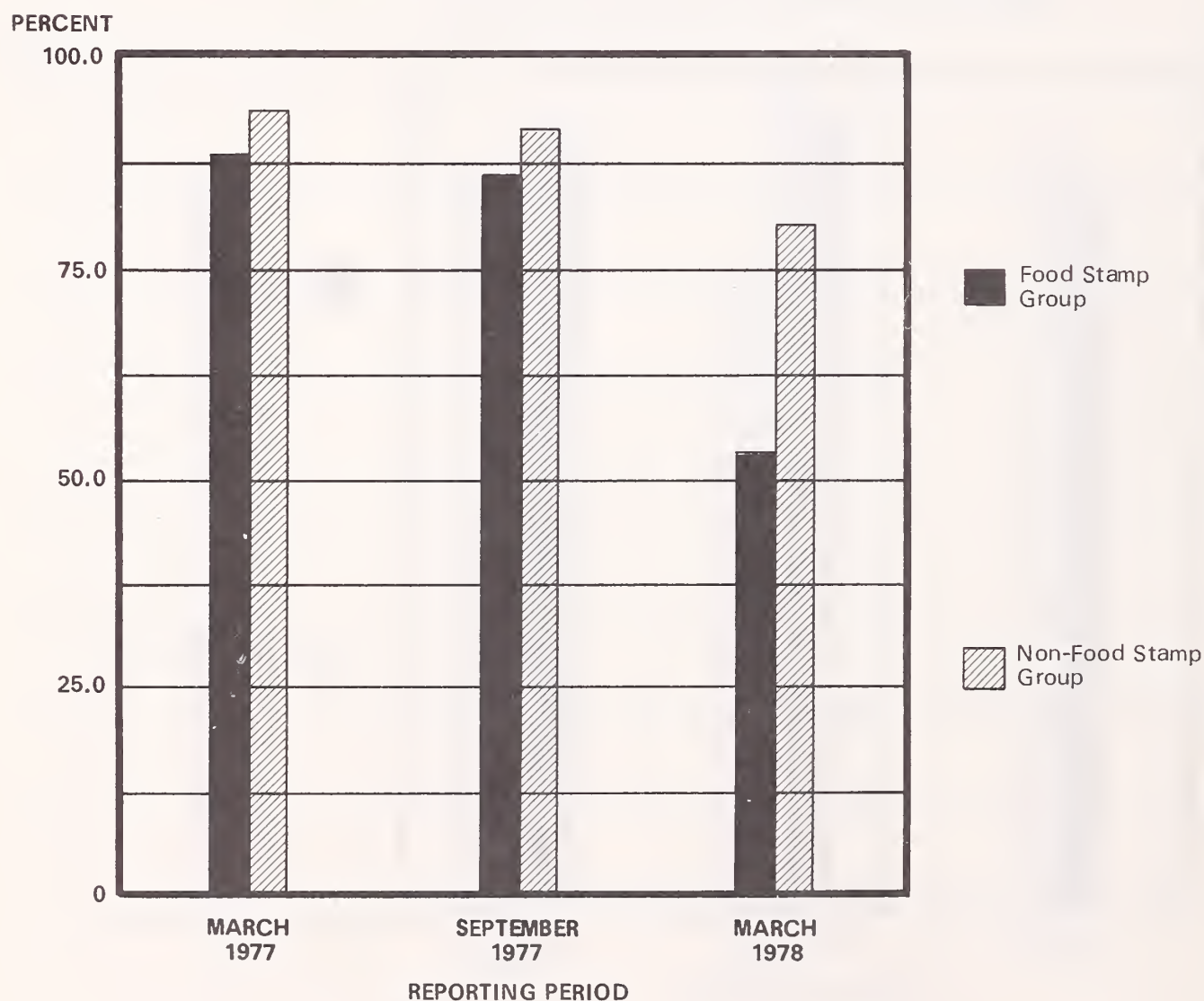
Percent Difference Between Entry Scores and Scores After 24 Months of Program Participation: Percentage of Homemakers Reporting No Servings of Vegetables and Fruits. As with the milk and meat groups, the average of measures for the food stamp group (80.6 percent) is only trivially different from the average for the non-food stamp group (82.1 percent). No pattern of trend appears.

FIGURE 65.
Percentage Difference Between Entry Level Scores and
Scores After 24 Months of Program Participation:
Percentage of Food Stamp and Non-Food Stamp
Homemakers Reporting No Servings of Vegetables and Fruits



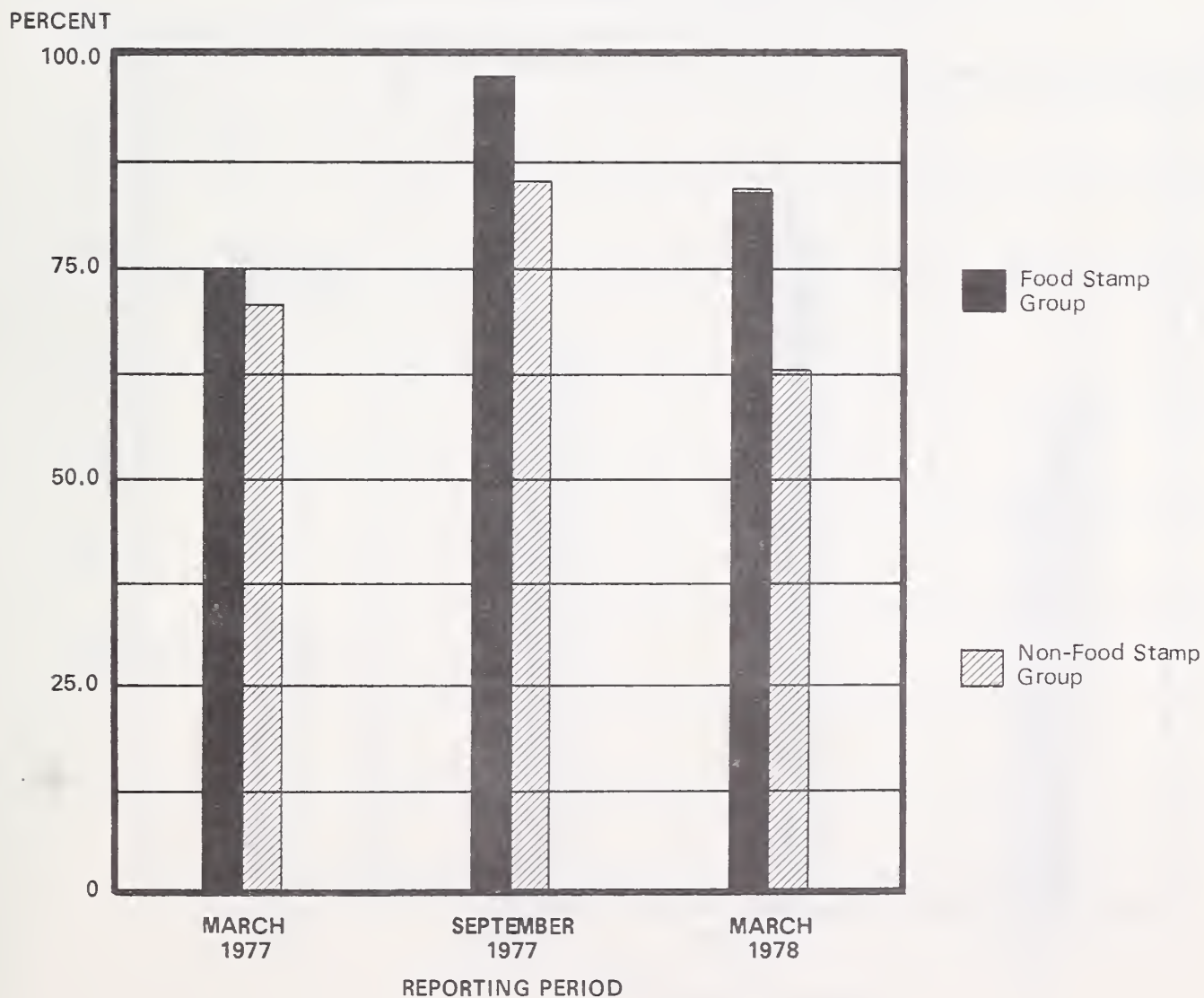
Percent Difference Between Entry Scores and Scores After 24 Months of Program Participation: Percentage of Homemakers Reporting No Servings of Breads and Cereals. The average measure for the food stamp group is somewhat lower than the average for the non-food stamp group: 75.9 versus 88.3 percent. This may indicate that EFNEP is somewhat less effective in persuading food stamp participants to consume at least some breads and cereals. There are, however, very few homemakers reporting no such servings entering the Program: 3.7 percent of food stamp homemakers; 3.2 percent of non-food stamp homemakers. Since the percentages of Program entry are so low, no practical significance can be attached to the differences.

FIGURE 66.
 Percentage Difference Between Entry Level Scores and
 Scores After 24 Months of Program Participation:
 Percentage of Food Stamp and Non-Food Stamp
 Homemakers Reporting No Servings of Breads and Cereals



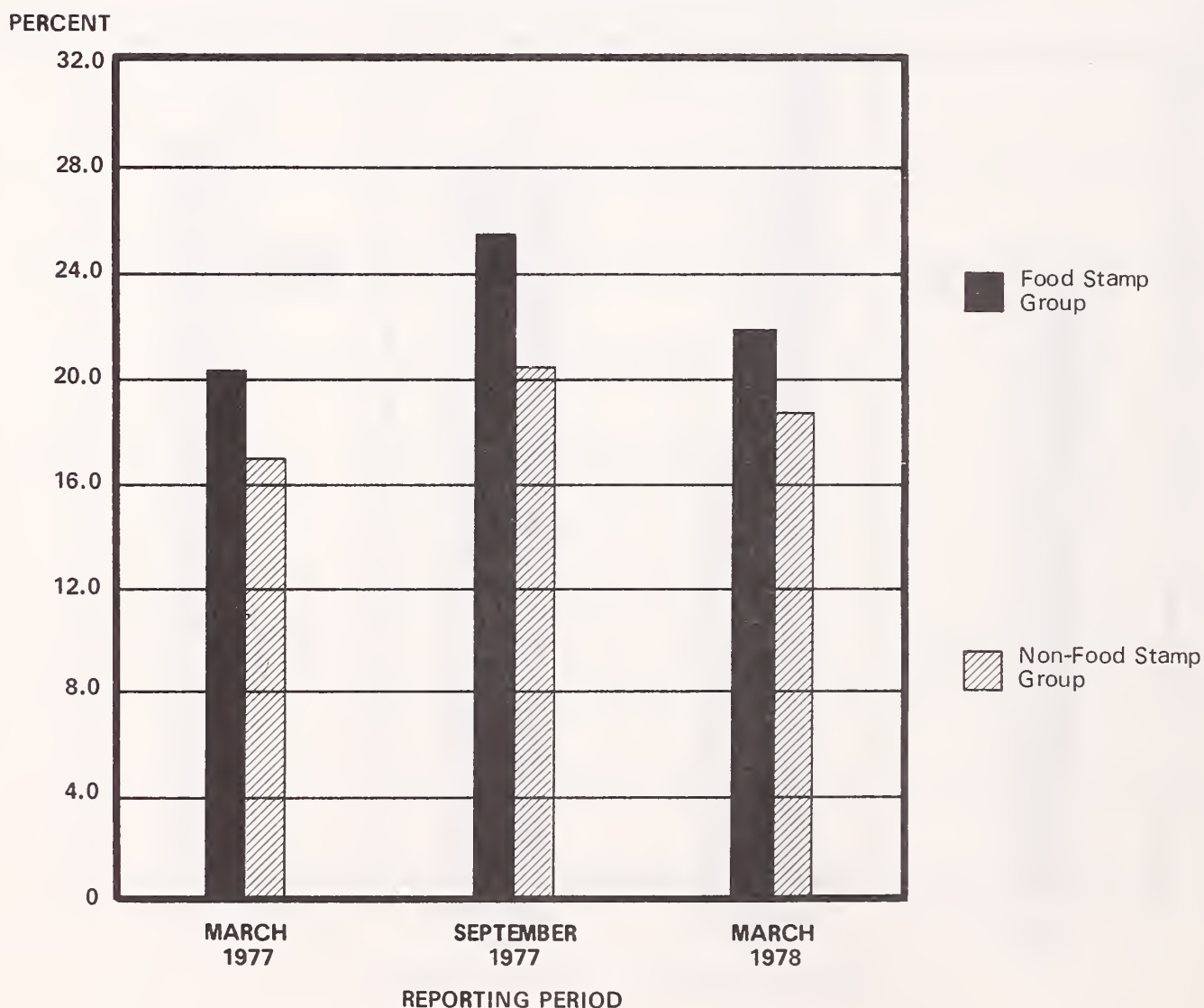
Percent Difference Between Entry Scores and Scores After 24 Months of Program Participation: Percentage of Homemakers Reporting Adequate Servings of Milk. On the average, it appears that EFNEP has been somewhat better at inducing adequate milk servings in the food stamp group (85.4 percent) than in the non-food stamp group (72.8 percent). This finding may indicate that EFNEP is somewhat more effective in inducing food stamp recipients to consume adequate servings of foods in the milk group.

FIGURE 67.
Percentage Difference Between Entry Level Scores and
Scores After 24 Months of Program Participation:
Percentage of Food Stamp and Non-Food Stamp
Homemakers Reporting Adequate Servings of Milk



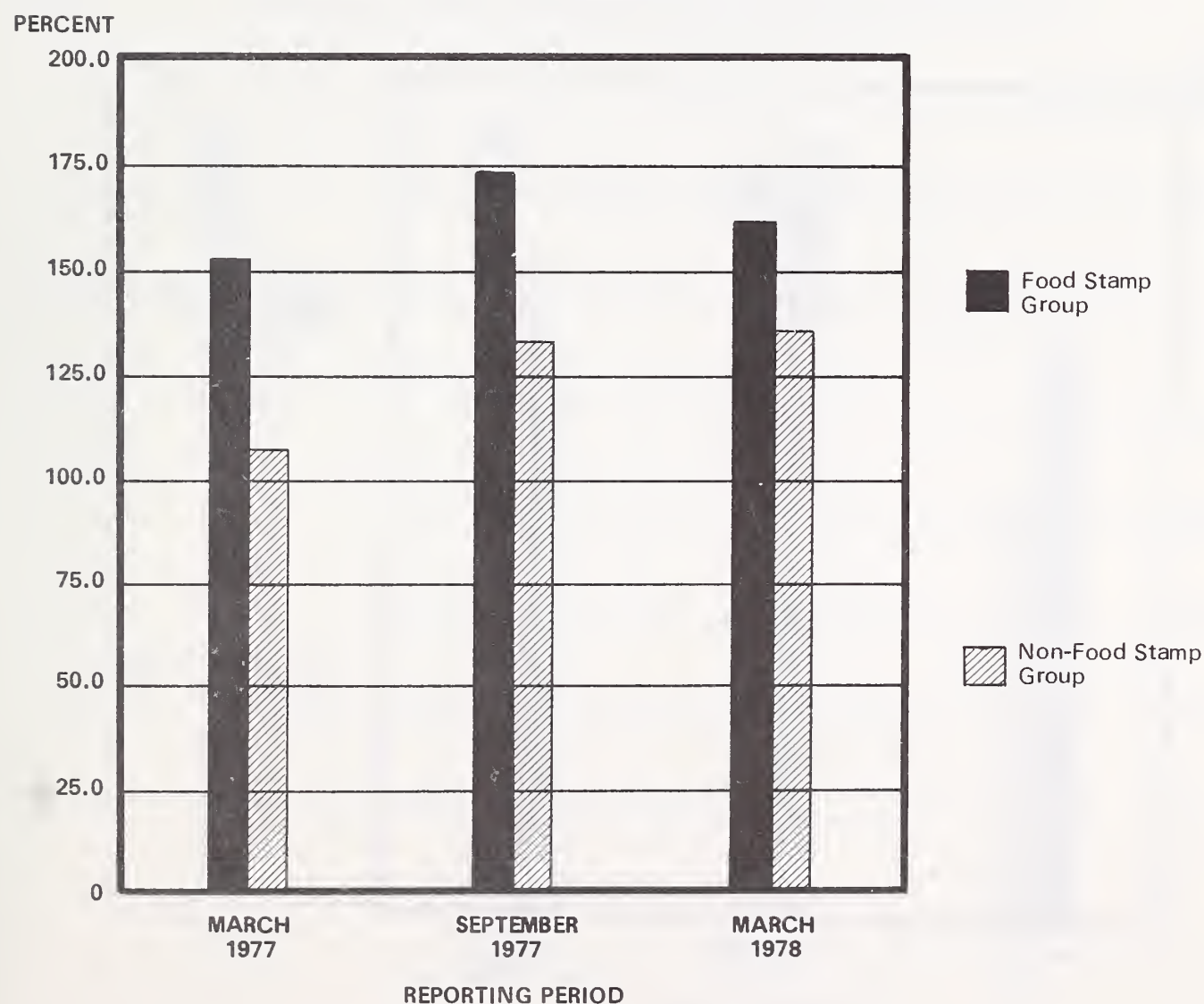
Percent Difference Between Entry Scores and Scores After 24 Months of Program Participation: Percentage of Homemakers Reporting Adequate Servings of Meat. The percentage difference is consistently larger in the food stamp group (22.6 percent) than in the non-food stamp group (18.8 percent). Because of the relatively high average percentages of adequate servings reported after two years of Program participation (85.7 percent for the food stamp group; 84.7 percent for the non-food stamp group), this finding has little practical significance for EFNEP operations.

FIGURE 68.
Percentage Difference Between Entry Level Scores and
Scores After 24 Months of Program Participation:
Percentage of Food Stamp and Non-Food Stamp
Homemakers Reporting Adequate Servings of Meat



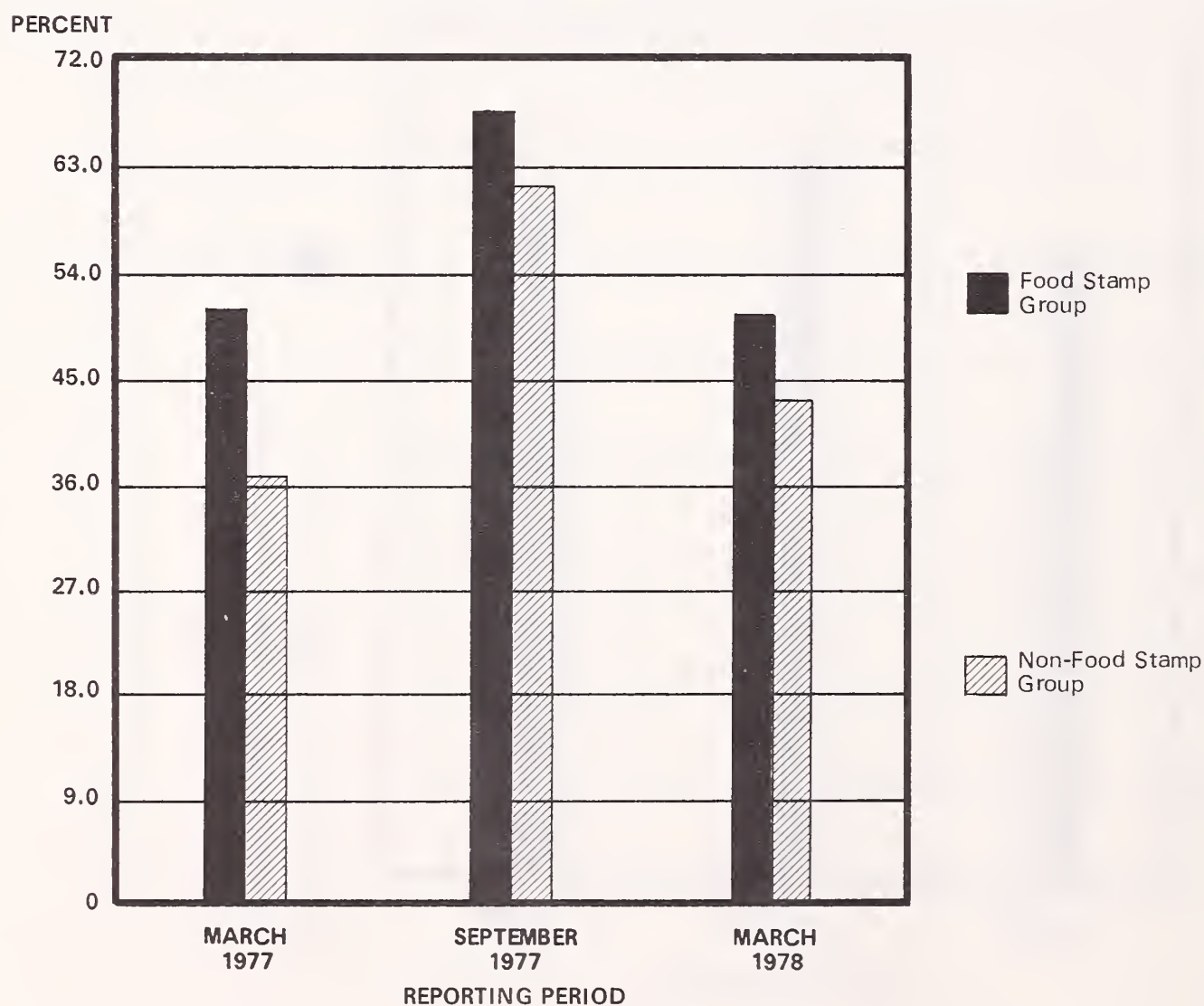
Percent Difference Between Entry Scores and Scores After 24 Months of Program Participation: Percentage of Homemakers Reporting Adequate Servings of Vegetables and Fruit. The percentage differences between Program entry percentages and those after 24 months of participation are consistently higher for the food stamp group (average of 162.8 percent) than for the non-food stamp group (average of 125.6 percent). In terms of the relative proportions of homemakers reporting adequate vegetable and fruit servings after 24 months in EFNEP, however, the food stamp group is better off (average of 45.5 percent) than the non-food stamp group (average of 40.1 percent). Thus, though the rate of improvement may be better for the food stamp group, this higher rate is not sufficient to overcome its lower scores at Program entry (average of 15.3 percent for the food stamp group; average of 20.3 percent for the non-food stamp group). The vegetables and fruits food group appears to be one which EFNEP should emphasize in working with food stamp recipients.

FIGURE 69.
Percentage Difference Between Entry Level Scores and
Scores After 24 Months of Program Participation:
Percentage of Food Stamp and Non-Food Stamp
Homemakers Reporting Adequate Servings of Vegetables and Fruits



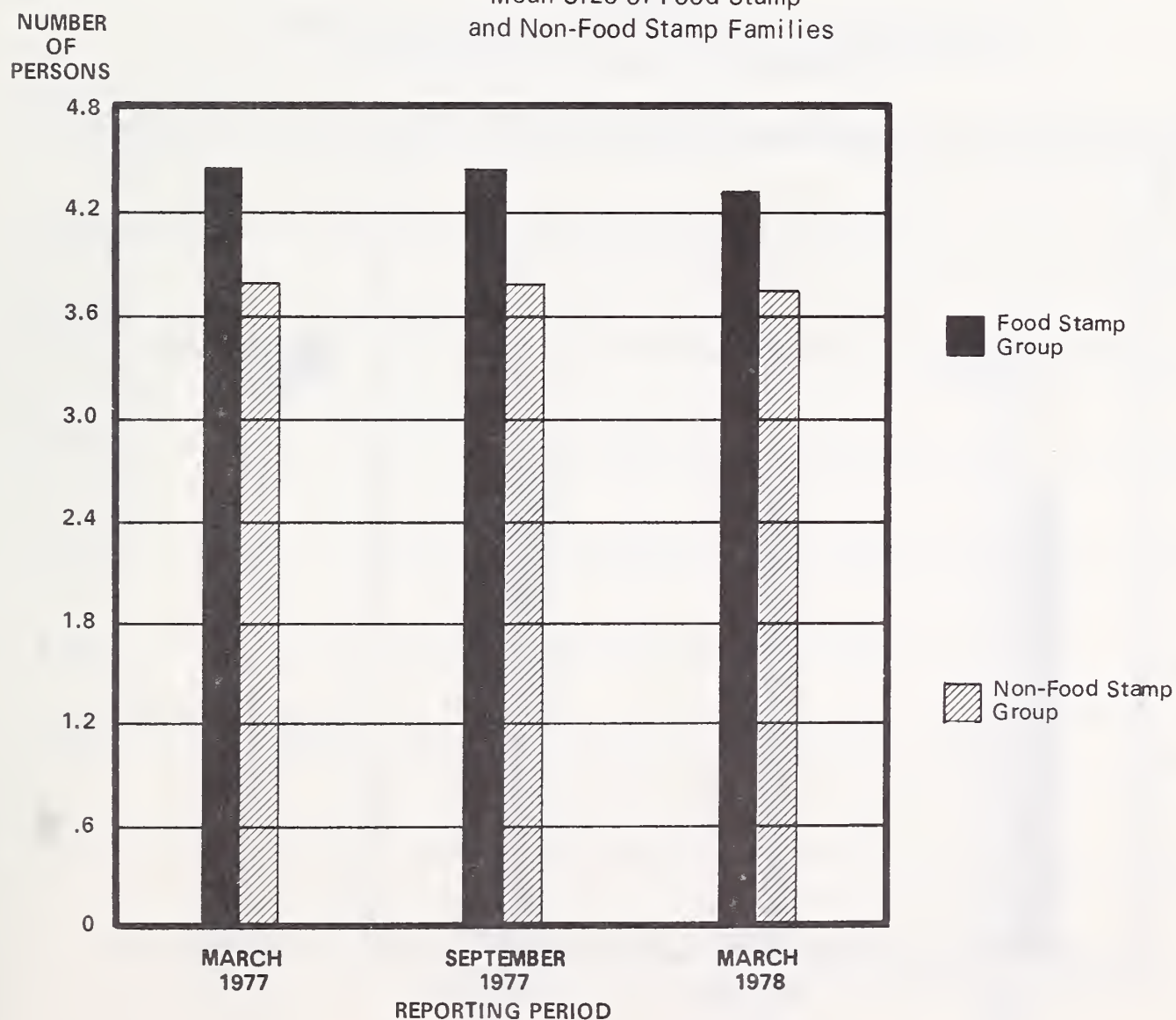
Percent Difference Between Entry Scores and Scores After 24 Months of Program Participation: Percentage of Homemakers Reporting Adequate Servings of Breads and Cereals. Again, the average percent increase is higher for the food stamp group (55.4 percent) than for the non-food stamp group (47.0 percent). After 24 months, the percentage of homemakers reporting adequate servings in this food group is about the same for both the food stamp group (average of 60.8 percent) and the non-food stamp group (average of 61.3 percent). The difference in rate is, therefore, accounted for primarily by the initially lower entry scores for the food stamp group. No consistent trend pattern is evident in these measures.

FIGURE 70.
Percentage Difference Between Entry Level Scores and
Scores After 24 Months of Program Participation:
Percentage of Food Stamp and Non-Food Stamp
Homemakers Reporting Adequate Servings of Breads and Cereals



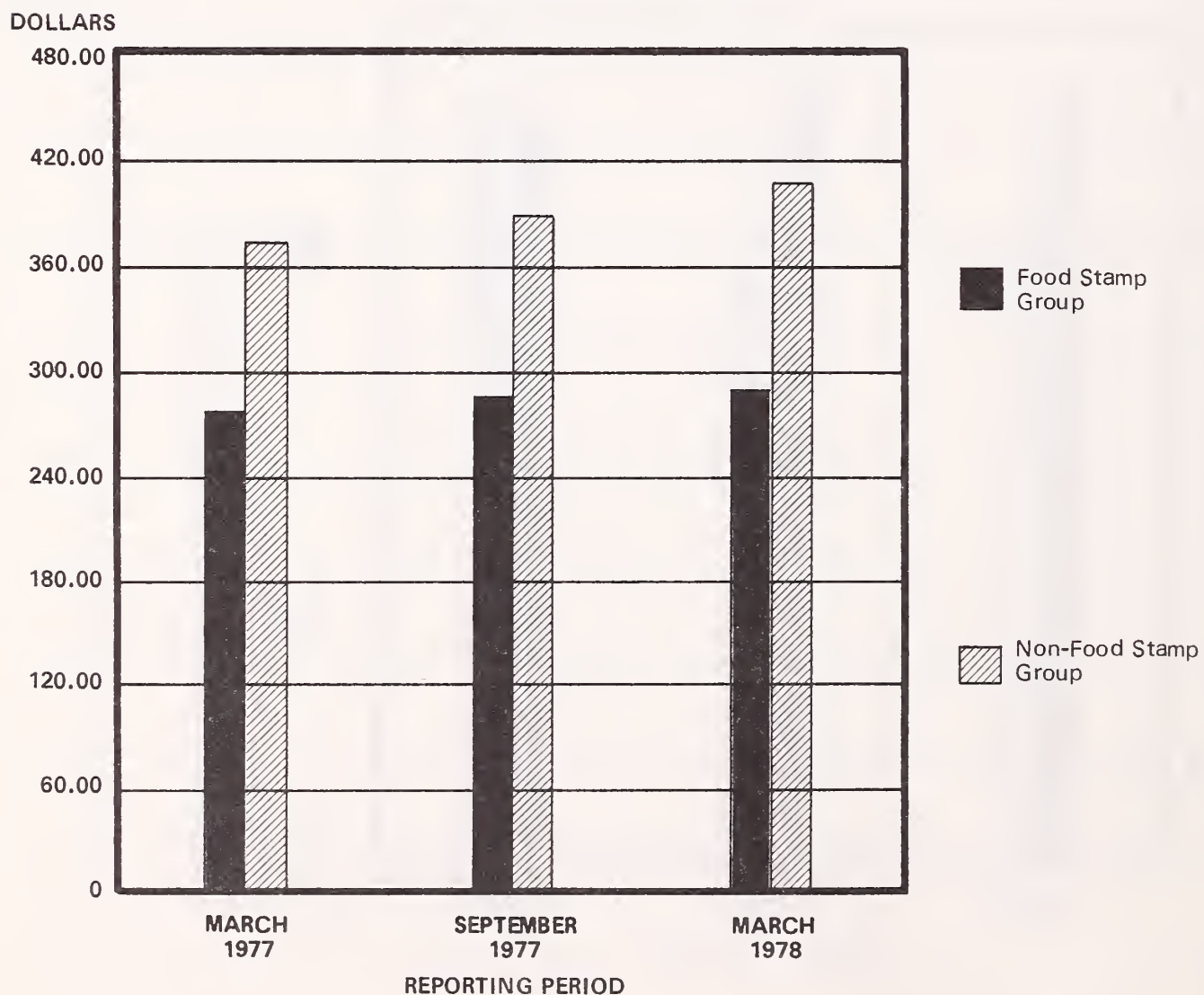
Program Family Size. The families of food stamp recipients are substantially larger than those of non-food stamp recipients: 4.4 versus 3.8 person average. In both of these groups, a downward trend in family size is evident.

FIGURE 71.
Mean Size of Food Stamp
and Non-Food Stamp Families



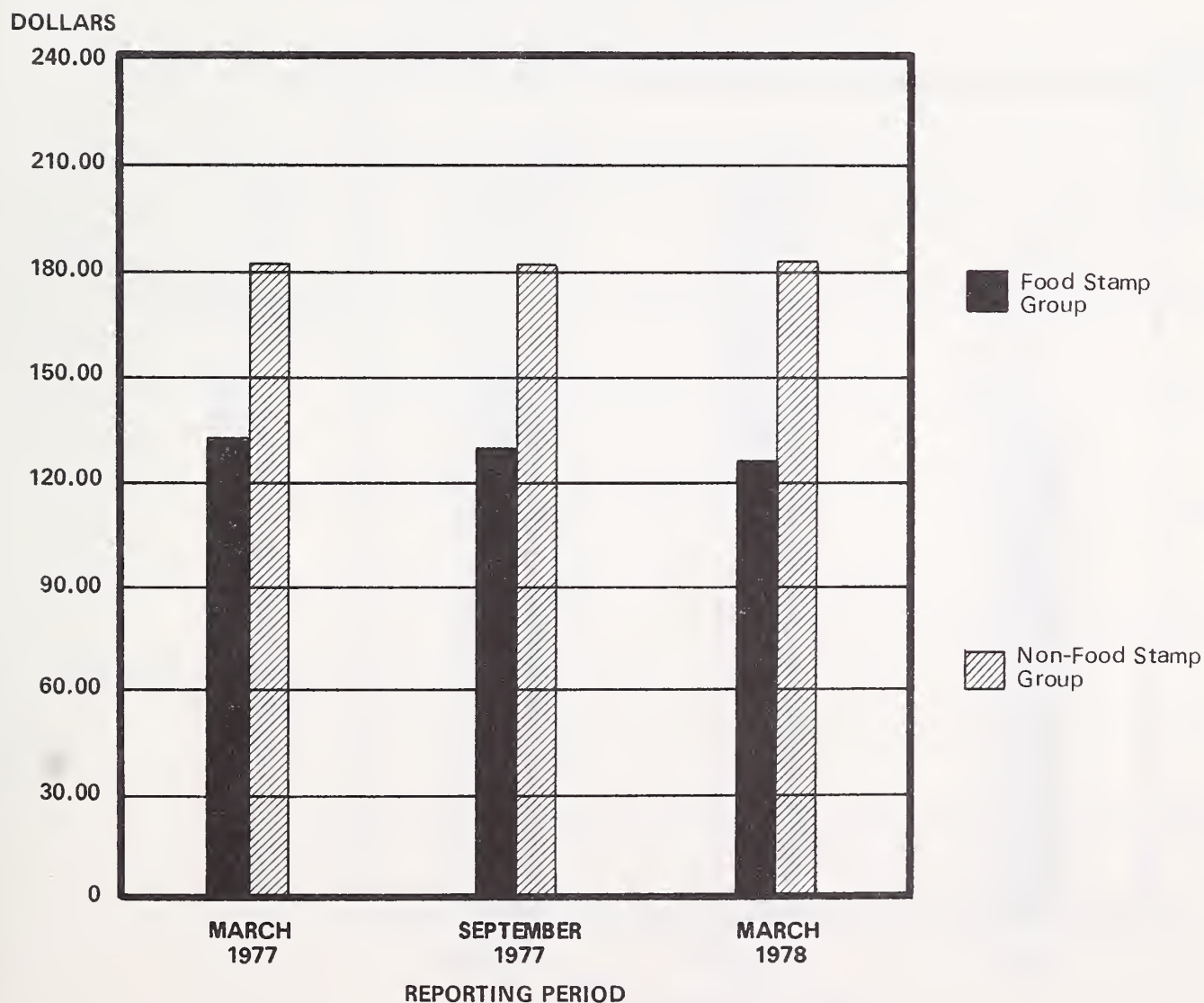
Family Income in Then-Current Dollars. Food stamp recipients at Program entry have average family incomes substantially lower than those of families not receiving food stamps: an average of \$283 per month versus \$390. Family incomes for both groups have risen steadily over the last three reporting periods. In an inflationary period, this sort of trend is expected. It should be noted that the income figures for the food stamp group do not include the added purchasing power resulting from food assistance program participation.

FIGURE 72.
Monthly Income for Food Stamp and Non-Food Stamp Families
at Program Entry in Then-Current Dollars



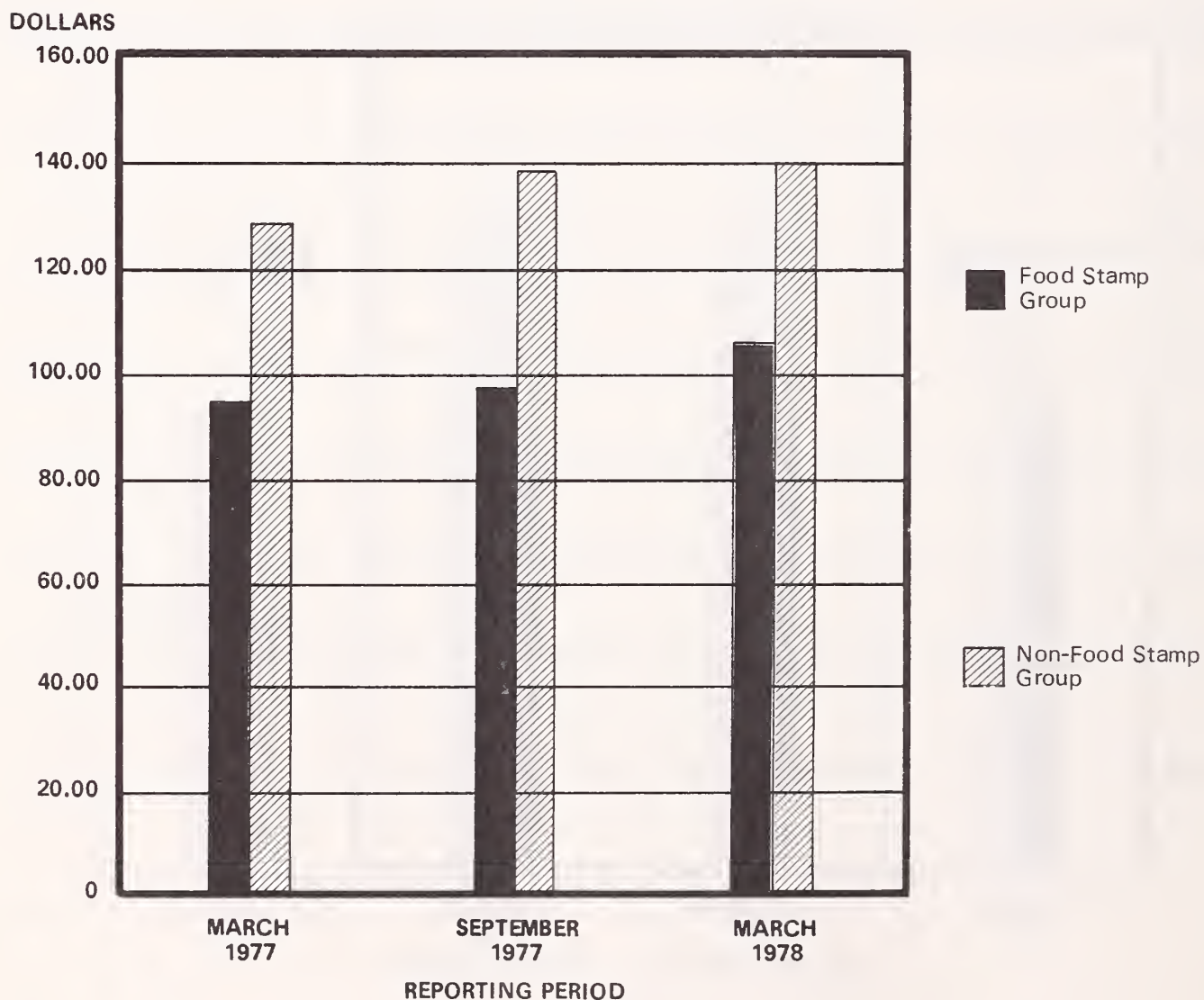
Family Income in Constant (1957-1959) Dollars. At Program entry, family income in constant dollars is lower for the food stamp group (\$132) than for the non-food stamp group (\$183). There have been no marked changes in constant dollar income for either group over the last three reporting periods; the food stamp group income is falling slightly, while that for the non-food stamp group is rising. Neither trend appears to be of any practical significance.

FIGURE 73.
Monthly Income for Food Stamp and Non-Food Stamp Families
at Program Entry in Constant (1957-1959) Dollars



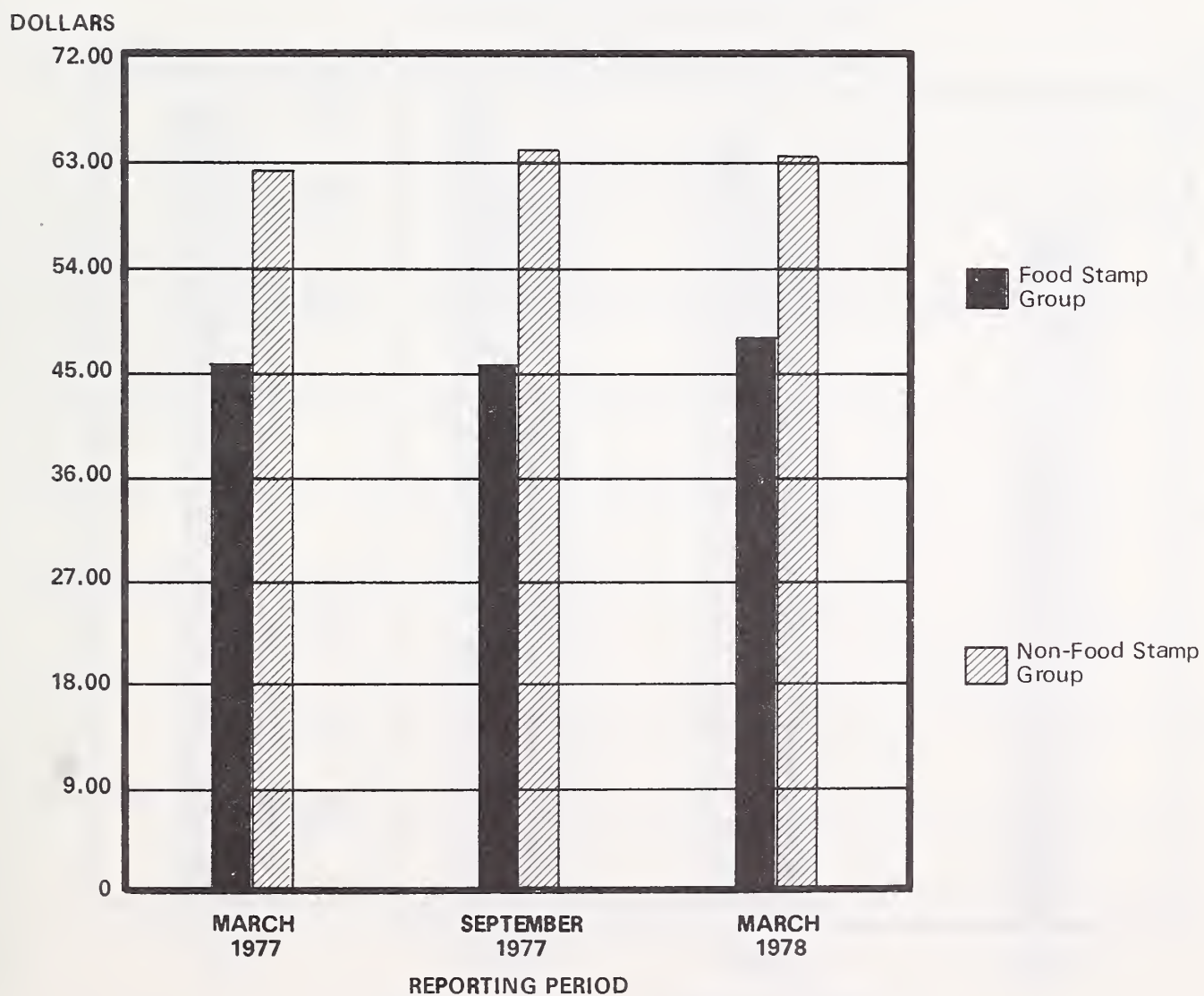
Family Food Expenditures in Then-Current Dollars. Average expenditures for food are lower in the food stamp group (average of \$100) than for the non-food stamp group (\$132) at entry into the Program. Measures for both groups have risen steadily over the past three reporting intervals. This trend is expected in the light of steadily increasing food costs.

FIGURE 74.
Family Food Expenditures for Food Stamp and Non-Food Stamp Families
at Program Entry in Then-Current Dollars



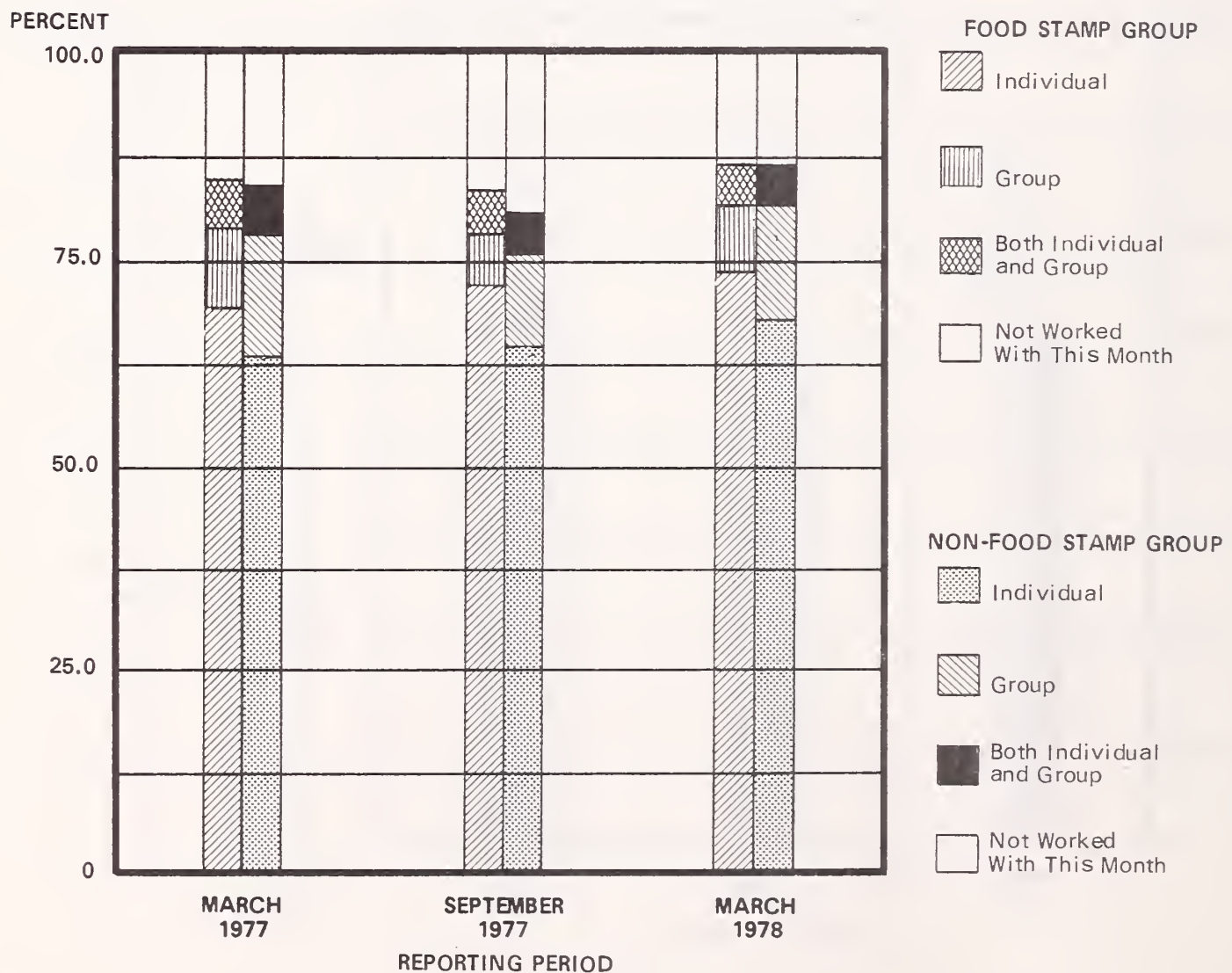
Family Food Expenditures in Constant (1957-1959) Dollars. As expected the constant-dollar food expenditures are lower for the food stamp group (average of \$47) than for the non-food stamp group (average of \$63) at Program entry. The consistent trend is evident.

FIGURE 75.
Family Food Expenditures for Food Stamp and Non-Food Stamp Families
at Program Entry in Constant (1957-1959) Dollars



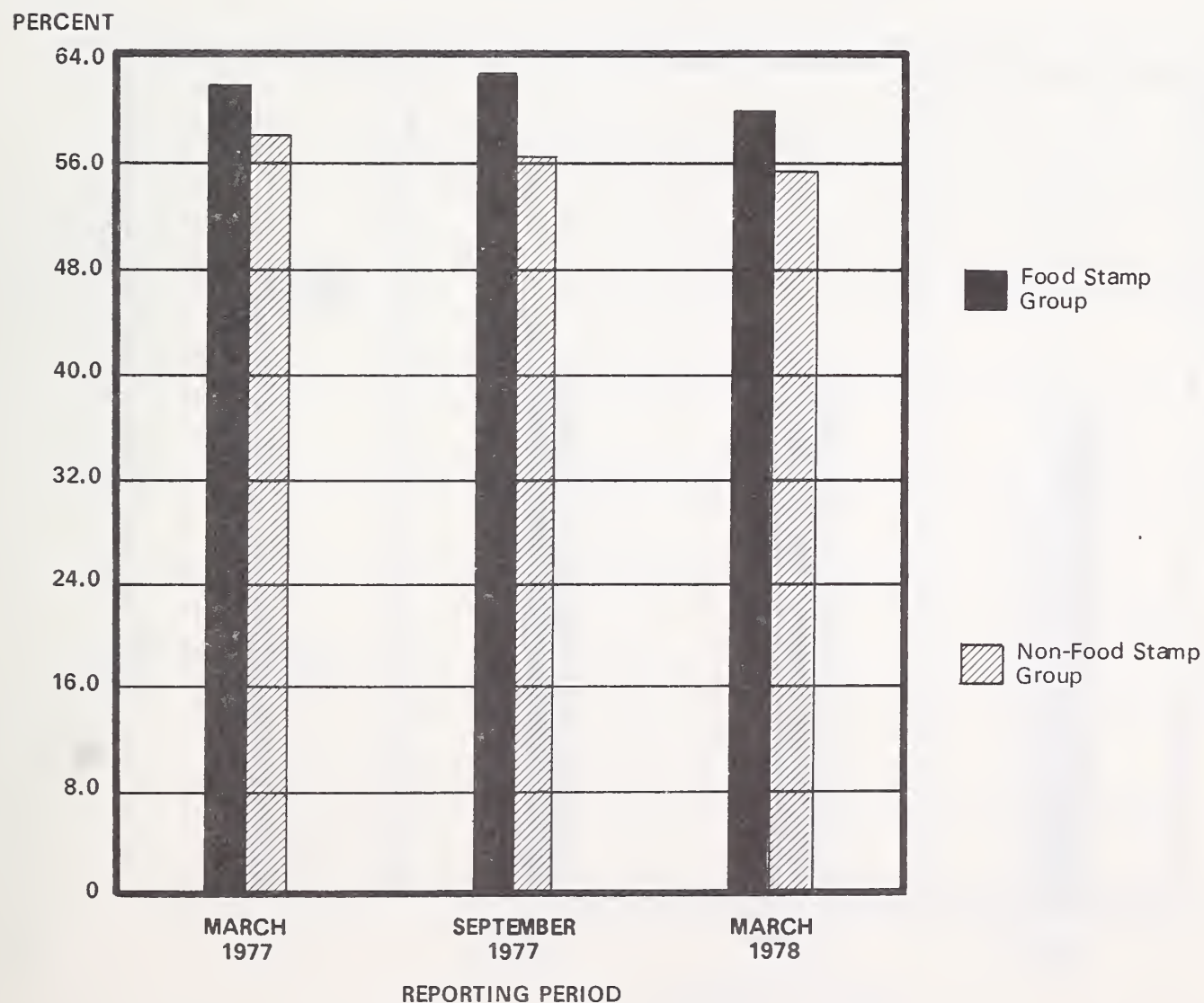
Family Participation Style. An average of 72.3 percent of food stamp participants participated in individual sessions, 8.4 percent in group meetings, and 4.2 percent in both types of sessions. The comparable figures for the non-food stamp group are 66.4 percent, 13.2 percent, and 4.6 percent. It appears then that food stamp families tend to participate more often in individual sessions. The average total percentage of families worked with during the month for which data are reported is then 84.9 percent for the food stamp group and 84.0 percent for the non-food stamp group. For both groups, the percentage of homemakers involved in individual sessions has consistently increased; no such stable pattern exists for group and combined sessions.

FIGURE 76.
Percentage of Food Stamp and Non-Food Stamp Families
Participating in Individual, Group, and
Both Individual and Group Sessions



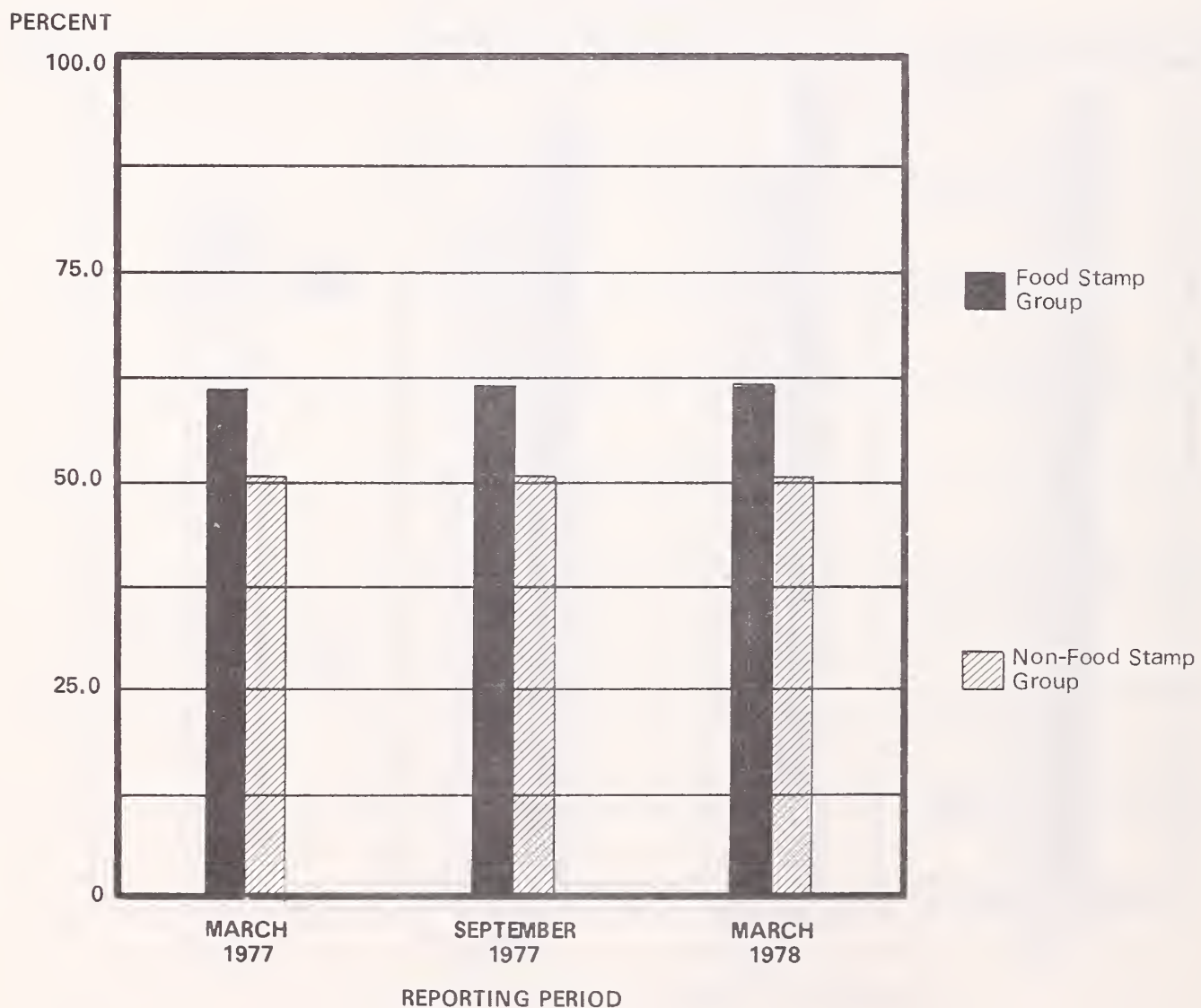
Family Residence. The average percentage of food stamp families residing in urban areas is slightly higher than that for the non-food stamp group: 61.3 versus 56.6 percent. The percentages for the non-food stamp group have consistently dropped for the last three reporting periods. This stability does not exist in the food stamp group.

FIGURE 77.
Percentage of Food Stamp and Non-Food Stamp
Families Residing in Urban Areas



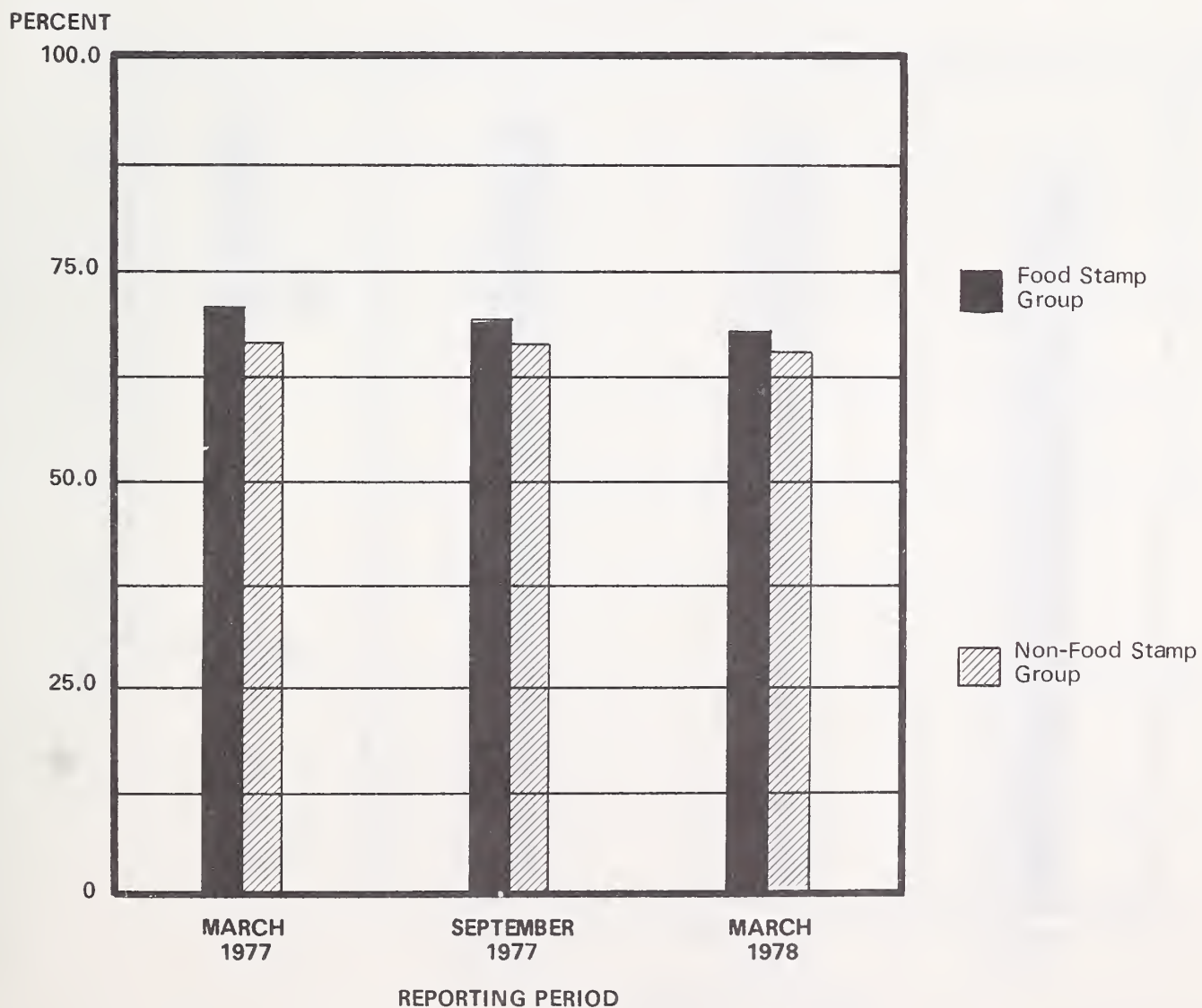
Family Members Under 19 Years of Age. The average percentage of Program family members under 19 years of age is somewhat higher for food stamp families than for non-food stamp families: 61.2 versus 50.6 percent. This indicates that food stamp families may have somewhat larger numbers of children than non-food stamp families, and are therefore more appropriate targets for EFNEP participation. There is no particular trend in either set.

FIGURE 78.
Percentage of Food Stamp and Non-Food Stamp
Family Members Under 19 Years of Age



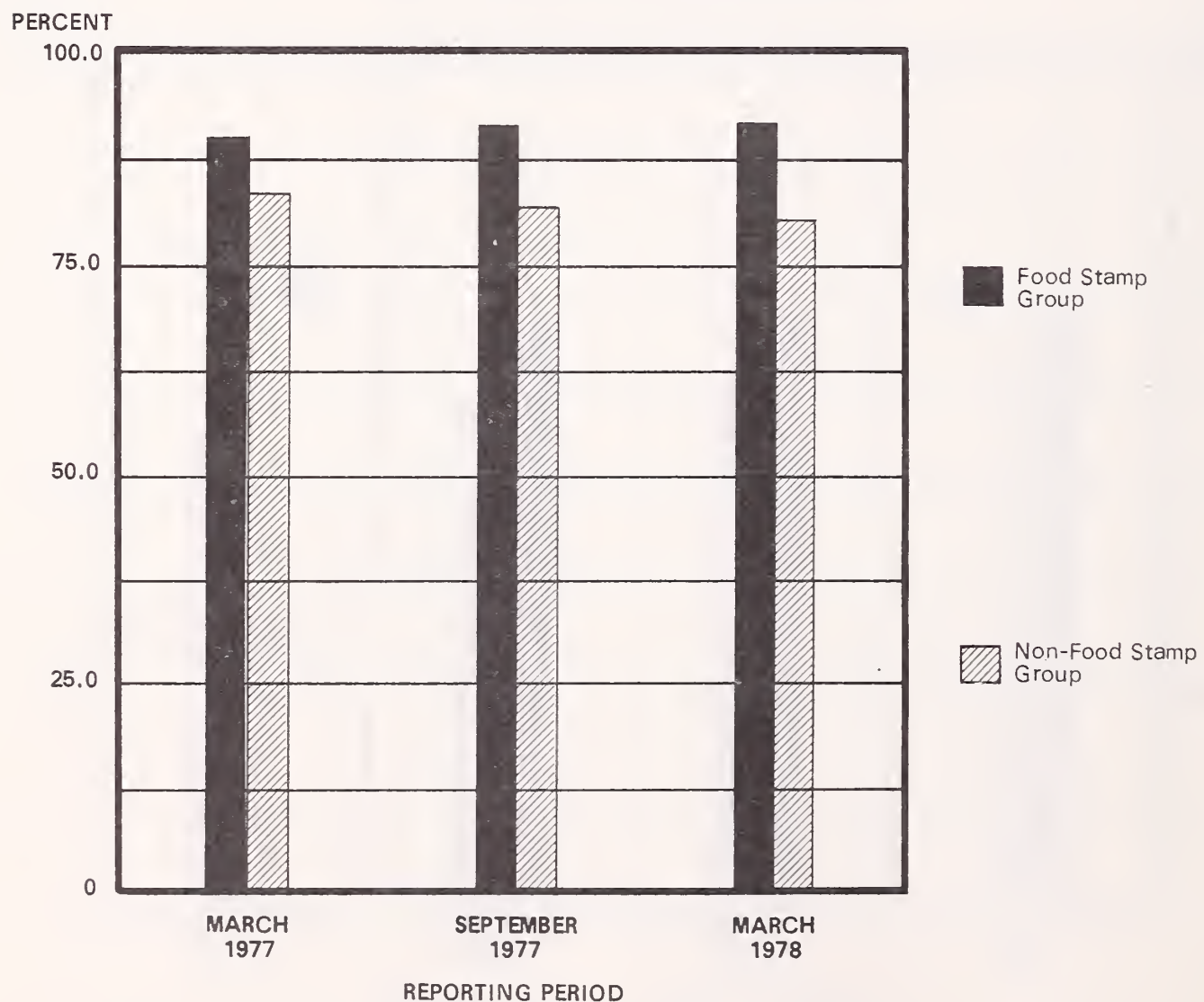
Percentage of Program Family Children in School. For the food stamp group, the average percentage of children attending school is slightly higher than for the non-food stamp group: 69.6 versus 66.6 percent. Percentages in both of these groups have been dropping over the last three reporting periods, but there are too few data points to determine whether this pattern represents a significant trend.

FIGURE 79.
Percentage of Children of Food Stamp Families and
Non-Food Stamp Families Attending School



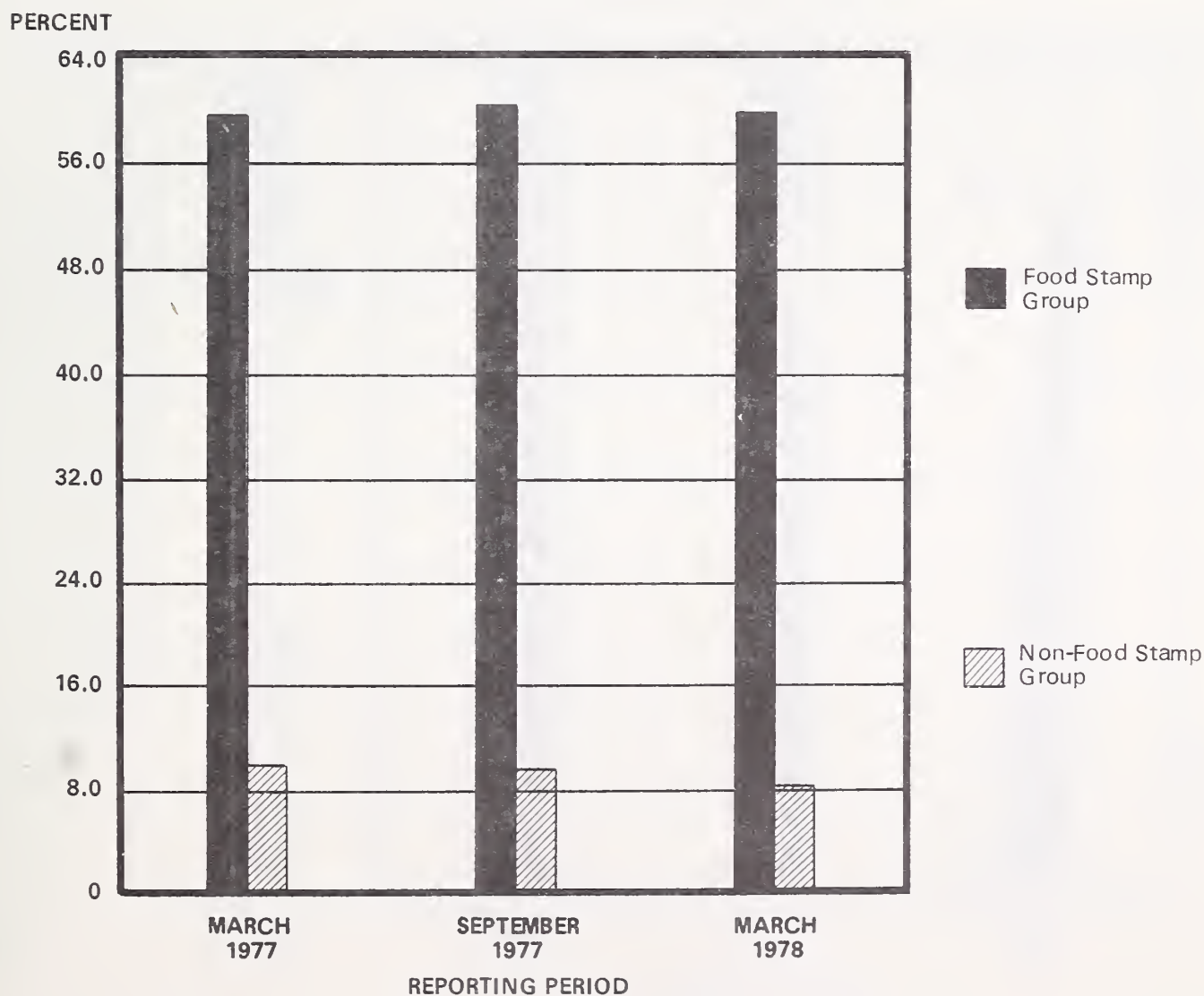
Participation in School Lunch Programs. There was a higher average percentage of school lunch participants in the food stamp group than in the non-food stamp group: 91.5 versus 82.3 percent. This situation is consistent with the general tendency of food stamp recipients to participate more heavily in assistance programs of all types.

FIGURE 80.
Percentage of Children of Food Stamp Families
and Non-Food Stamp Families Participating in
School Lunch Programs



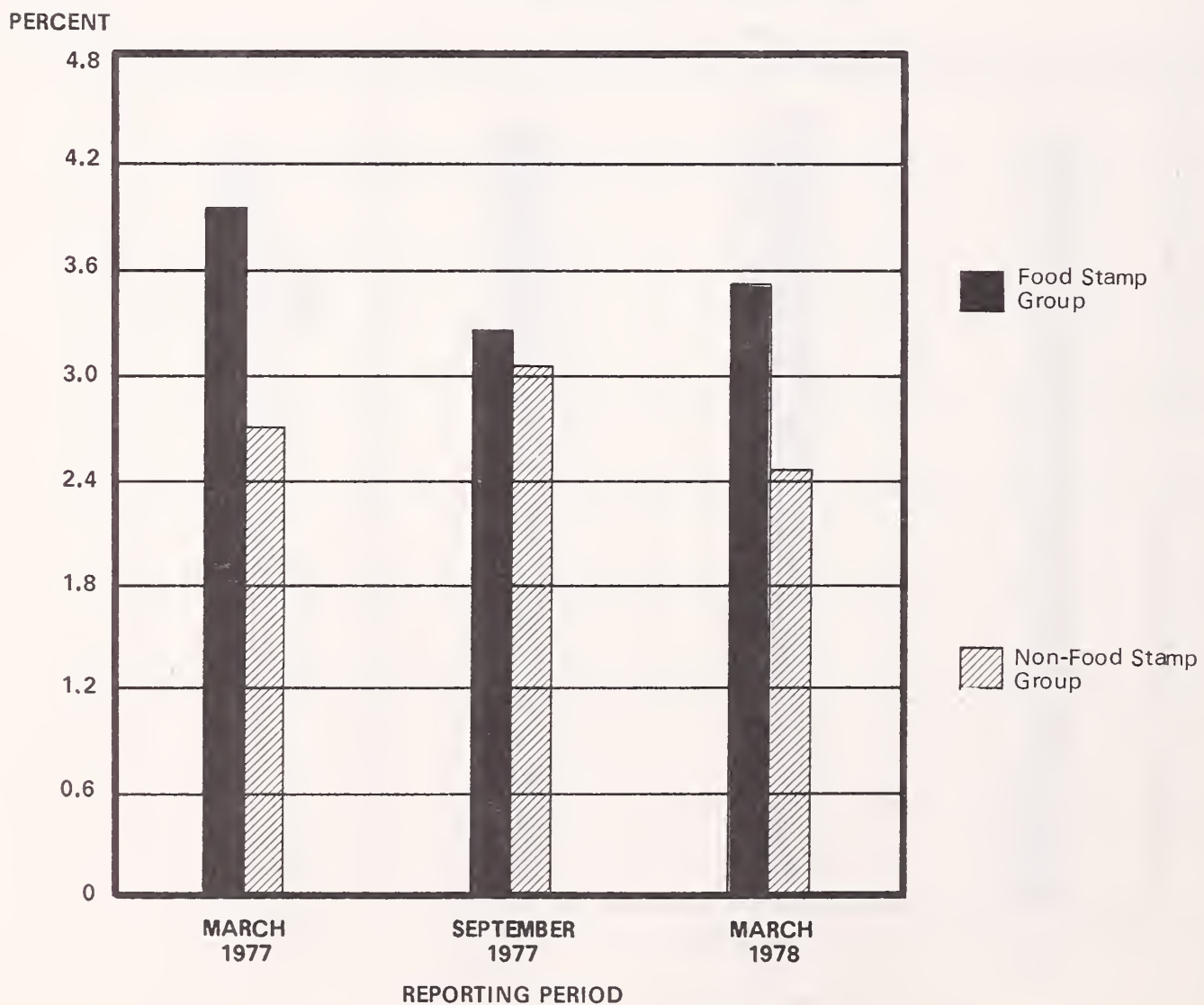
Program Family Welfare Reciprocity. The average percentage of food stamp families receiving welfare assistance is dramatically higher than that for the non-food stamp families: 60.0 versus 9.7 percent. It is therefore apparent that food and financial assistance program participation go hand-in-hand. The percentage of families receiving welfare assistance in the non-food stamp group has been dropping over the last three reporting periods. No such stable sequence exists in the food stamp group.

FIGURE 81.
Percentage of Food Stamp Families and
Non-Food Stamp Families Receiving
Welfare Assistance



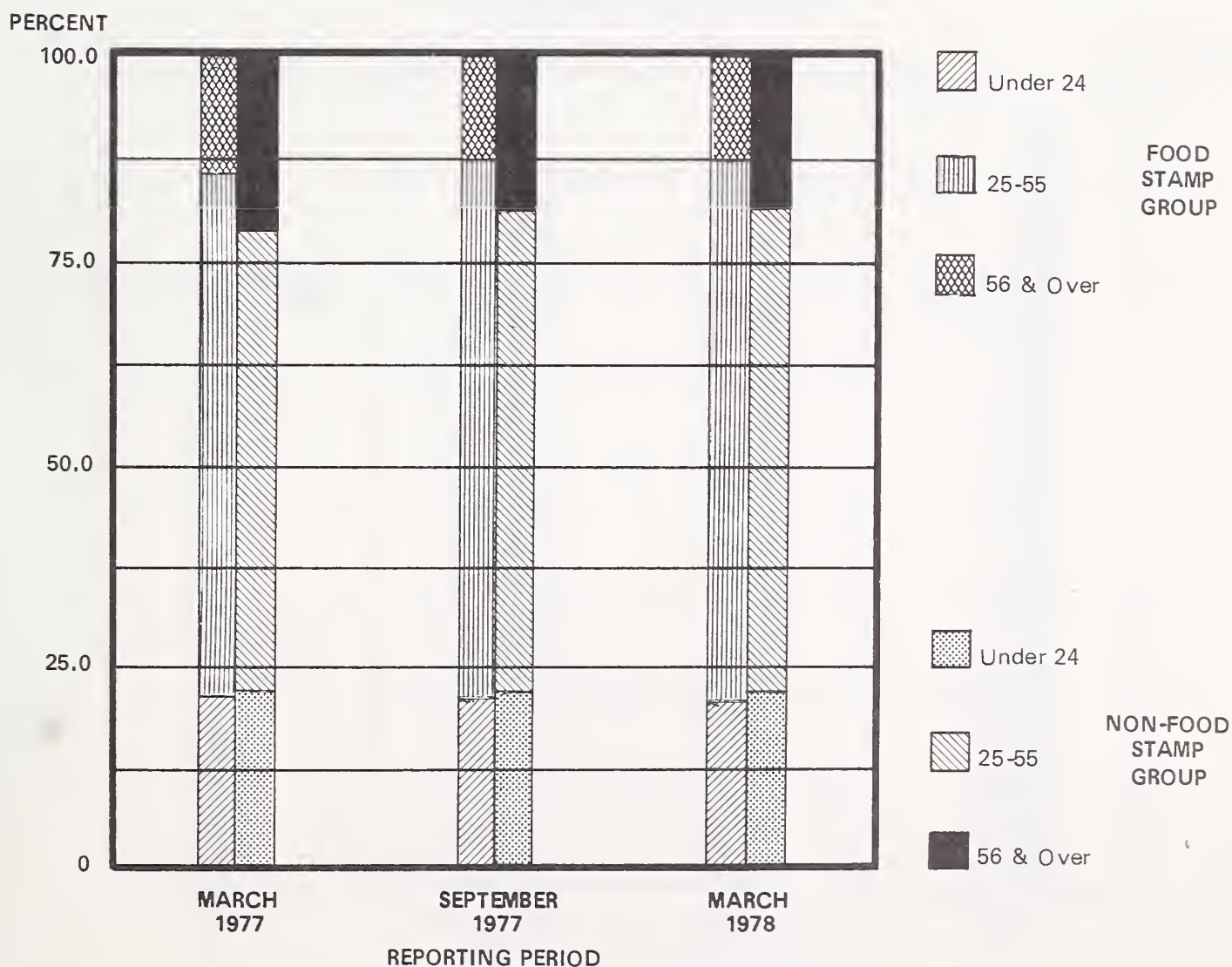
Program Family FHA Assistance Reciprocity. A slightly higher percentage of food stamp recipients receives FHA assistance than non-food stamp participants: an average of 3.6 versus 2.8 percent. This finding is consistent with the overall higher average participation of food stamp recipients in assistance programs of all sorts.

FIGURE 82.
Percentage of Food Stamp Families and Non-Food Stamp
Families Receiving FHA Assistance



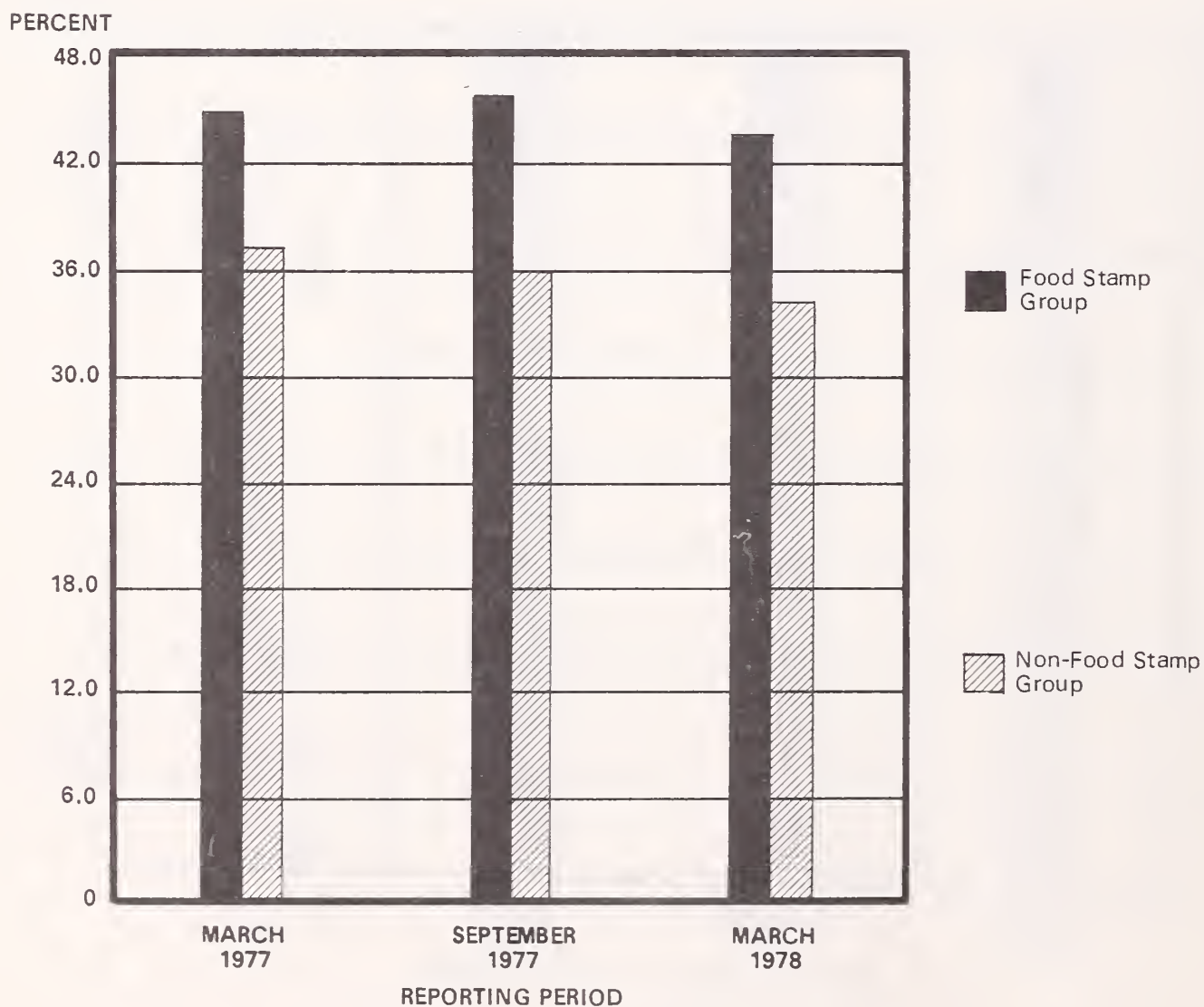
Homemaker Age. For the food stamp group, an average of 21.2 percent of homemakers are under 24 years of age, 65.4 percent are between 25 and 55 years of age, and 13.3 percent are 56 years old or older. The comparable averages for the non-food stamp group are 22.0 percent, 58.7 percent, 19.1 percent. It thus appears that homemakers in the non-food stamp group are, on the average, somewhat older than those in the food stamp group. In all cases, the percentage of young homemakers is steadily rising, while the percentage of homemakers 56 or older has consistently dropped.

FIGURE 83.
Percentage of Food Stamp and Non-Food Stamp
Homemakers in Various Age Categories



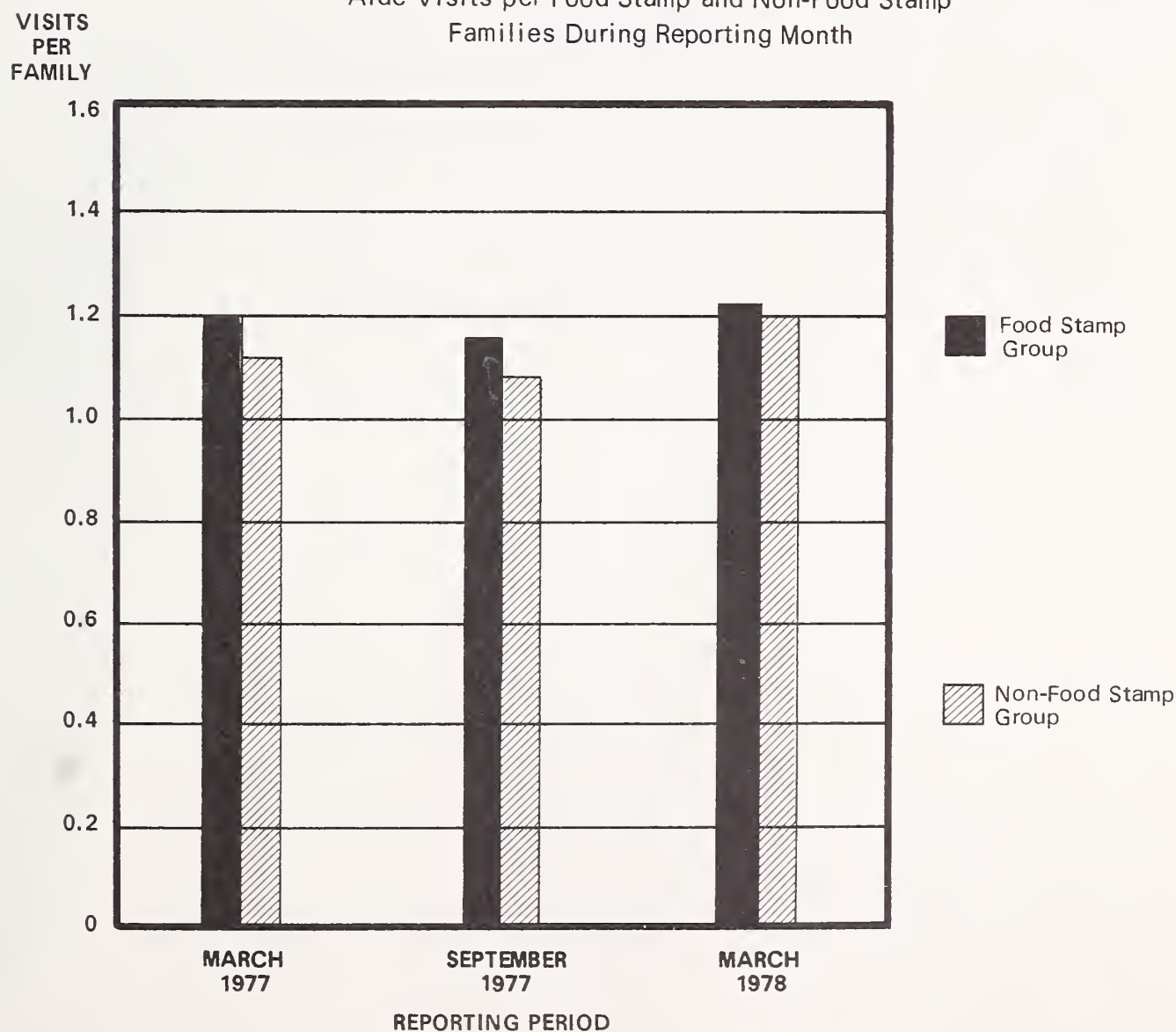
Homemaker Education. An average of about 45 percent of homemakers in the food stamp group have less than an eighth grade education, the comparable figure for the non-food stamp group is about 36 percent. The percentage in the non-food stamp group has dropped steadily over the last three reporting periods; this stability of trend does not appear in the food stamp group.

FIGURE 84.
Percentage of Food Stamp and Non-Food Stamp
Homemakers with an Educational Attainment
of Less than Eighth Grade



Aide Visits Per Program Family. In all three reporting periods, the Program Aide visit rate has been slightly higher for the food stamp group (average of 1.19 visits per family) than for the non-food stamp group (average of 1.13 visits per family). It appears, therefore, that EFNEP is working somewhat more efficiently with food stamp families than with non-food stamp families. The differences are not large, and may be explainable in terms of the slightly larger proportion of food stamp families who reside in urban areas. It may be that there is less family-to-family travel time involved in urban areas, thus permitting a higher visit rate.

FIGURE 85.
Aide Visits per Food Stamp and Non-Food Stamp
Families During Reporting Month



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REFERENCES

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APPENDIX:
CLASSIFICATION OF EFNEP STUDIES

APPENDIX

CLASSIFICATION OF EFNEP STUDIES

Well over a hundred State studies relating directly to EFNEP have been performed since the inception of the Program. This Appendix classifies 87 of these studies in four ways:

- ✓ PURPOSE of the study, or the reason the research was performed or the report written.
- ✓ DESIGN of the study, assuming that design is an important consideration of the research.
- ✓ ASPECT of EFNEP which is the subject of the study or report.
- ✓ ROLE(S) examined, described, assessed, or affected by the study.

Figure 86 presents classification keys for each of the four categories.

PURPOSE of the study	DESIGN of the study	ASPECT of EFNEP studied	ROLES addressed
<u>E</u> valuation or assessment of some aspect of a nutrition education program. <u>D</u> escription of some aspect of a nutrition education program.	<u>E</u> xperimental, involving control or comparison group. <u>S</u> urvey or nonexperimental assessment of attitudes, knowledge, or behavior by questionnaire, inter- view, or extraction of data from existing records. <u>C</u> ase study or description of the conditions existing in a nutrition education program.	<u>M</u> ethods employed by or developed for a nutrition education program. <u>T</u> argeting, bearing on the characteristics of personnel or families. <u>P</u> erceptions of the Program. <u>A</u> ttitudes about EFNEP or nutrition <u>K</u> nowledge about nutrition. <u>B</u> ehavioral change in nutrition or nutrition- related phenomena.	<u>S</u> upervisory personnel. <u>P</u> araprofessional personnel. <u>V</u> olunteers. <u>F</u> amilies in EFNEP. <u>H</u> omemakers. <u>Y</u> outh. <u>E</u> FNEP in general. <u>N</u> on-EFNEP personnel.

Figure 86. Classification Key for EFNEP Study Descriptors

Thus, a report encoded as in the example below indicates an Evaluation study using an Experimental design involving control or comparison groups which assesses Behavioral change in Homemakers participating in EFNEP.

PURPOSE	DESIGN	ASPECT	ROLE
E	E	B	H

Backman, M. J. *Job satisfaction and job dissatisfaction as perceived by expanded nutrition program assistants of the North Dakota Extension Service*. Fargo: North Dakota State University, 1972. (Master's thesis.)

Baldwin, D. R. *Evaluation of program effectiveness through multi-agency cooperation in the use of aides*. (2 vols.) College Park: University of Maryland, 1976. (Special project reports.)

Benedict, L. F. *The development of a nutrition education game for the expanded nutrition program in Black Hawk County, Iowa*. Cedar Falls: University of Northern Iowa, 1972. (Master's thesis.)

Bowering, J., & Morrison, M. A. *East Harlem nutrition education program: 1. An exploration of dietary practices*. Ithaca: Cornell University, New York State College of Human Ecology, Division of Nutritional Sciences, 1973. (HE-08) (Special needs project.)

Bowering, J., Morrison, M. A., & Lowenberg, R. *East Harlem nutrition education program: 3. Dietary and biochemical assessment of women in a high-risk obstetrics clinic*. Ithaca: Cornell University, New York State College of Human Ecology, Division of Nutritional Sciences, 1974. (Special needs project.)

Brew, E. P. H. *A comparison of lower-income and upper-income homemakers relative to their knowledge and practice of nutrition*. Baton Rouge: Louisiana State University, 1971. (The findings from Extension studies, R&T Sum, 25; summary of M. S. thesis in Ext. Ed.)

Brown, N. L. *Evaluation of nutritional adequacy of the diets of children enrolled in the expanded nutrition educational program*. University Park: Pennsylvania State University, 1972. (Master's thesis.)

PURPOSE	DESIGN	ASPECT	ROLE
E	S	B,P	S,P
E	S	B,M	N
E	S	B	N
L	--	M	E
E	S	B	H
E	S	T	N
E	E	B	H
E	S	B	Y

Burkhart, A. C. *Expectations of the aides' role on the part of aides and home economists in nutrition education program.* New York: Teachers College; Columbia University, 1975. (Doctor's study.)

Burkhart, A. C. *Study of foods selected by eighty-one New Jersey homemakers as reflected in four family records, Part II from January 1969 through December 1970 (evaluation).* New Brunswick, New Jersey: Rutgers University, 1975.

Burt, B. J., Jones, H. E., & Stairs, G. R. *The development of self-determined group projects in expanded nutrition education for low-income teenage youth.* Tucson: University of Arizona, 1976. (Final report of special needs pilot project.)

Caples, V. *Interlocking concepts: Food and nutrition and personal development.* Ames: Iowa State University, 1972. (Doctoral thesis.)

Chakravorty, M. S. *Case study of family food aides in expanded nutrition program.* Ames: Iowa State University, 1972. (Doctoral thesis.)

Collier, A. *Improving the food management skills of the low-income homemaker in Passaic County--the extension approach.* Upper Montclair, New Jersey: Montclair State College, 1972. (Research project in partial fulfillment of Master's degree.)

Cormier, F. R. *A comparison of youths' diets during school to those consumed during summer vacation. Beauregard Parish.* Baton Rouge: Louisiana State University, 1971. (The Findings from Extension Studies, R&T Sum. 30, Baton Rouge. Summary of an M. S. Thesis in Ext. Ed.)

Davie, L. E., Butler, R. O., Williams, B., & Meiners, S. *A study of certain personality, skill, and demographic characteristics of the expanded food and nutrition educational program aides and homemakers.* Pullman: Washington State University, 1973. (Special needs project.)

PURPOSE	DESIGN	ASPECT	ROLE
E	S	A,P	S,P
E	S	B,K	H
D	--	M	Y
E	S	B	F,Y
E	S	M,P,A	P,Y,V
E	C	B	P
E	S	B	H
E	S	B,T	Y
E	S	B	H
E	S	I,A,K	P

Davis, E. F. *Characteristics of Extension EFNEP program assistants in six selected East Tennessee counties*. Knoxville: SDRC, University of Tennessee, 1974. (Degree Program Study)

Decker, I. *An evaluation study of the expanded food and nutrition education program in Delaware*. Newark: University of Delaware, 1974. (Thesis.)

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Elliott, E. *A model for evaluating educational programs aimed at disadvantaged families*. Madison: University of Wisconsin, 1972.

Elliott, E., & Fitzsimmons, E. *She talks about nutrition*. Madison: University of Wisconsin, 1972. (A report of an evaluation of EFNEP in Douglas County, Wisconsin.)

Englebrecht, W. M. *Followup of paraprofessionals working with low-income families*. Ithaca: New York College of Human Ecology, Department of Community Service Education and Extension Administration, 1972. (Doctor's dissertation--two volumes.)

Gassie, E. W. *An evaluation of the expanded nutrition education program in six Louisiana parishes*. Baton Rouge: Louisiana State University, undated. (The findings from Extension studies, R&T Sum. 19; summary of combined findings from two M. S. theses submitted in the Dept. of Ext. Ed., by Tommie Plovanich and Leodrey Williams.)

PURPOSE	DESIGN	ASPECT	ROLE
E	S	T	P
E	S	B	S,P
E	S	B	H
D	--	M	E
E,D	--	M	E
E	S	I,A	H
E	S	B,P	P
E	S	B	H

Gassie, E. W. *Getting volunteer leaders on the job in the 4-H-like nutrition program for low income youth in urban area.* Baton Rouge: Louisiana State University, undated. (The findings from Extension studies, R&T Sum. 20; summary of a research project conducted in the Dept. of Ext. Ed. by Edward W. Gassie, Joseph H. Jones, Satish Verma and Ashford O. Williams.)

Gassie, E. W. *Some food-buying practices of homemakers in Louisiana.* Baton Rouge: Louisiana State University, undated. (The findings from Extension studies, R&T Sum. 22; summary of a study conducted and reported by R. Elizabeth Williams, Specialist [Consumer Education].)

Gibb, M. C. *Enhancing behaviors toward adequate nutrition: Continuing education model.* Lincoln: University of Nebraska, 1972.

Green, N. C. *Dimensions of a new careers program.* Tucson: University of Arizona, 1972. (This research is part of a Master's Candidate study program in the Division of Home Economics Education, University of Arizona, School of Home Economics.)

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Hall, M. R. *Attitudes regarding the low-income expanded nutrition program of the Douglas County cooperative extension service.* Lincoln: University of Nebraska, 1970.

Hatch, J. C. *A study of EFNEP support materials and suggested program emphases.* University Park: Pennsylvania State University, Extension Studies No. 48, 1974.

PURPOSE	DESIGN	ASPECT	ROLE
E	S	M	V
E	S	B	H
E	A,S	B	H
E	S	B	S,P
E	S	B	H
E	S	M	V
E	S	A,P	P,H
E	S	M	H

Hayes, K. G. *Effects of design variables on user evaluation of printed materials prepared for the expanded nutrition education program in Pennsylvania.* University Park: Pennsylvania State University, Extension Studies No. 50, 1974.

Heasley, D. K. *Role strain expressed by Extension agents upon introduction of new program; a case study in selected northeast States.* University Park: Pennsylvania State University, 1971. (Abstract.)

Heasley, D. K. *Opinions expressed by county-based professional Extension agents and lay Extension personnel upon introduction of the expanded youth nutrition program; a case study in selected northeast States.* University Park: Pennsylvania State University, Extension Studies No. 46, undated. (Preliminary report.)

Hodges, J. *The influence of certain demographic criteria on the change in nutrition habits of the underprivileged in the expanded nutrition program.* Wichita, Kansas: Wichita State University, undated. (Master's degree.)

Hustey, J. *An evaluation of the expanded nutrition education program in Pennsylvania.* University Park: Pennsylvania State University, 1970. (Summary of a professional paper.)

James, M. A. *The effect of the Extension Service's youth nutrition lesson series and selected socio-psychological factors on nutrition behavior change in disadvantaged youth.* Raleigh: North Carolina State University, 1975. (Doctor's thesis.)

Johnson, M. R. *The effect of the Extension Service's youth nutrition lesson series and selected factors in the teaching/learning environment on nutrition behavior change in disadvantaged youth.* Raleigh: North Carolina State University, 1975. (Doctor's thesis.)

PURPOSE	DESIGN	ASPECT	ROLE
E	A	M	E
E	C	A,P	N
E	S	A,P	N
E	A	B,T	H,F
E	S	T	H,F
E	S	I	H,F
E	E	B,M	Y
E	E	B	Y,P
E	E	M	P

	PURPOSE	DESIGN	ASPECT	ROLE
Jones, J. H. <i>Evaluation of the Louisiana nutrition education program.</i> Baton Rouge: Louisiana State University, undated.	E	S	B	H, F, Y
Jones, J. H., Jr., & Verma, S. <i>Evaluation of a nutrition education program in Louisiana for low-income clientele, 1970.</i> Baton Rouge: Louisiana State University, 1972. (The findings from Extension studies, R&T Sum. 39; summary of a study conducted by the Louisiana Cooperative Extension Service under Cooperative Agreement No. 12-17-05-2-585 with the Economic Research Service, U. S. Department of Agriculture, Washington, DC.)	E	S	B	H
Jones, J. H., Jr., & Verma, S. <i>Louisiana expanded food and nutrition education program--Are we doing as well as we think?</i> Baton Rouge: Louisiana State University, 1975. (The findings from Extension studies, R&T Sum. 67; abstracted from the Master's thesis of Shirley Scott, Louisiana State University, Department of Home Economics.)	E E	E E	B M	H P
Kazmarek, J. E. <i>Growth status of preschool children in the expanded nutrition and family program.</i> East Lansing: Michigan State University, 1975. (Master's thesis.)	E	S	T	Y
Kerr, M. E. <i>Demographic characteristics and the nutritional status of families entering the expanded nutrition and family program.</i> East Lansing: Michigan State University, 1973. (Master's thesis.)	E	S	B	H
Kindon, L., & Toensmeyer, U. C. <i>Food consumption practices of families in the expanded Delaware nutrition education program in lower Delaware.</i> Newark: University of Delaware, 1975.	D E	C S	B, T B, T	H E
Kohn, H., Ahlman, C., & Florell, R. J. <i>A follow-up study of former paraprofessional aides in Nebraska's expanded food and nutrition education program.</i> Lincoln: University of Nebraska, 1975.	E	S	B	P

Korslund, M. K. *The expanded nutrition program in Lancaster County, Nebraska*. Lincoln: University of Nebraska, 1971.

Linn, J. B. *Analysis of concepts held by family food aides*. Ames: Iowa State University, 1971. (Master's thesis.)

Loomis, M. R. *The development of instruments to evaluate the success of homemakers in the expanded food and nutrition education program*. Ithaca: New York State College of Human Ecology, Department of Community Service Education and Extension Administration, 1973. (Master's thesis.)

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Mitchell, L. T. *Socialization in families--three groups of homemakers who participate in the Cooperative Extension program, Rock Island County: Nutrition program assistants; homemakers in expanded nutrition program; homemakers in Extension units*. Urbana: University of Illinois, 1971. (Term paper for course Problems in Marriage and Family 410.)

Montgomery, D. E. *An evaluation of a youth nutrition education program by age, Calcasieu Parish, 1970*. Baton Rouge: Louisiana State University, 1971. (The findings from Extension studies, R&T Sum. 29; a summary of M. S. thesis in Ext. Ed., Louisiana State University, 1971.)

Morris, P. *The development of a rapid and objective procedure to evaluate progress of nutrition programs* (final report). East Lansing: Michigan State University, 1975. (Special needs project.)

Mortvedt, M. M. *The relationship between selected characteristics of aides and homemakers in the expanded food and nutrition education program and aide effectiveness*. Columbus: Ohio State University, Cooperative Extension Service, Office of Staff Development and Program Analysis, 1974.

PURPOSE	DESIGN	ASPECT	ROLE
D	C	--	H
E	S	B,A	P
D	--	M	P
E	E	M	P,H
E	S	B	H
D	--	M	H
E	S	M	H
--	--	--	H
E	S	B,T	H,P
E	S	B,K	Y
D	--	M	E,P
E	E	B	H

	PURPOSE	DESIGN	ASPECT	ROLE
Myers, S. E. <i>The impact of paraprofessionals on home economics Extension personnel and programs.</i> Ames: Iowa State University, 1970. (Master's thesis.)	E	S	B	S,P
Nease, L. J. <i>A profile of paraprofessionals working with the expanded food and nutrition program in Pennsylvania.</i> University Park: Pennsylvania State University, Extension Studies 60, 1975. (Professional paper in Ext. Ed.; Master's thesis.)	E	S	T	P
Newell, H. J., Ramsey, C. E., & Wilson, D. A. <i>Attitudes of county leaders toward expanding youth programs in Extension: Minnesota expansion study 11.</i> St. Paul: University of Minnesota, Agricultural Extension Service, 1969. (Special report 32.)	E	S	A	N
Nolan, N. M. <i>Change in self-esteem experienced by nonprofessional participants in a poverty reduction program.</i> University Park: Pennsylvania State University, 1971. (Abstract of Ph.D. thesis.)	E	S	A,P	P
Nolan, N. M., & Gross, J. G. <i>An evaluation of the influence of the expanded food and nutrition education program in Missouri.</i> Columbia: University of Missouri, undated.	E	S	B	E
Olson, G. R. <i>The role of the subprofessional in the Cooperative Extension Service.</i> Raleigh: North Carolina State University, 1970. (Doctor's thesis.)	D	--	M	P
Ombwara, S. A. K. <i>Nutrition concepts of youth in the Iowa expanded nutrition program.</i> Ames: Iowa State University, 1972. (Master's thesis.)	E	S	B,P,A	Y
Owens, B. <i>Identifiable characteristics of good program assistant performance in Alabama expanded food and nutrition education program.</i> Baton Rouge: Louisiana State University, 1974. (Study made in graduate work.)	E	S	A,P,M	P
Pope, W. <i>A study of the expanded nutrition program in Waco, Texas.</i> College Station: Texas A&M University, 1972. (Doctor's thesis.)	E	S	A,P,K	H

	PURPOSE	DESIGN	ASPECT	ROLE
Ramsey, C. <i>Evaluation of side effects of the expanded food and nutrition education program: A summary.</i> St. Paul: University of Minnesota, 1972.	E	S	B	H,F
Ryckman, R. M. <i>The use of paraprofessionals to mobilize volunteers for nutrition education and community growth.</i> Orono: University of Maine, 1972. (Special project report.)	D E	C E	M B	V H,Y
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	PURPOSE	DESIGN	ASPECT	ROLE
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PURPOSE	DESIGN	ASPECT	ROLE
E	A	M	P,S
E	S	B	Y
E	S	K	P
E	S	B,T	Y
E	S	M	P
E	S	A,P,B	H,F
D	--	M	Y
E	S	M	Y
E	S	B,A,P	N

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PURPOSE	DESIGN	ASPECT	ROLE
E	S	B	H
E	S	A	N
E	S	T	H
E	C,S	A,P	P

